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ABSTRACT

This bibliography consists of an indexed collection of 234 references, with abstracts, to literature on alcohol, tobacco, and other drug use among school-age youth in the United States, and what can be done to prevent or reduce use. The main focus is on research--specifically, epidemiological surveys, investigations of risk factors, and prevention and intervention program evaluations. Includes a topic index with entries for subjects, specific drugs, and specific populations covered, and a separate document type index. Index terms which designate population types and geographic areas refer to research or other literature which specifically discusses those populations. (BF)

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Western Regional Center
DRUG-FREE SCHOOLS AND COMMUNITIES

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PREVENTION BIBLIOGRAPHY
1993-1994

An Annotated Guide to Information on Alcohol, Tobacco, and Other Drug Use Among Youth

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August 1994

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PREVENTION BIBLIOGRAPHY
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An Annotated Guide to Information on Alcohol, Tobacco, and Other Drug Use Among Youth

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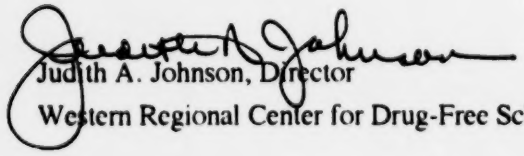
Robert G. Sieber
Gregory Austin
Southwest Regional Laboratory

Western Regional Center for Drug-Free Schools and Communities
August 1994

DIRECTOR'S NOTE

This is the fourth in a series of annual guides to the literature on alcohol, tobacco, and other drug use and prevention among American youth. It is designed to assist in finding the latest information about this pressing social problem and the most effective strategies for eliminating it, as part of the ongoing effort of the Western Regional Center to promote "knowledge transfer" of research findings to prevention practitioners and the public. The literature on alcohol, tobacco, and other drug abuse is extensive and has been rapidly expanding. Furthermore, because alcohol, tobacco, and other drug research touches upon so many aspects of life and involves so many different interests and research disciplines, information about it is published in a wide variety of scholarly and popular journals. This situation makes it extremely difficult for people other than professional researchers (and even for many researchers) to keep abreast of the latest developments in the field, a problem aggravated by the communication gap between prevention practitioners and researchers. This annual review will help alleviate these information problems by helping all concerned stay abreast of new developments in etiological research, program evaluations, and promising prevention and intervention strategies.

Several people's assistance and cooperation made this guide possible. Special gratitude is due to Kelly Andersen at the Southwest Regional Laboratory, and Gail Weinberg at the Drug Information Center.



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INTRODUCTION

This bibliography consists of an indexed collection of 234 references, with abstracts, to literature on alcohol, tobacco, and other drug use among school-age youth in the United States, and what can be done to prevent or reduce use. It indexes literature identified and received by the author between July 1993 and July 1994. The main focus is on research—specifically, epidemiological surveys, investigations of risk factors, and prevention and intervention program evaluations. General discussions, literature reviews, and program descriptions have been included if they were deemed relevant to understanding the nature of the problem and to developing programs to address it. The scope of this review is national, but emphasis has been given to research dealing with the Western Regional Center's service area. Also, because of the scarcity of strong longitudinal studies, one Canadian longitudinal study in a large sample population has been included.

Much new literature this year remains critical of research being done in the field and of trends in prevention programs. It is, however, evident that research and knowledge on promising strategies and approaches is expanding. As has been true with previous years' *Prevention Bibliographies*, documents summarized here tend to support previous conclusions that the new generation of more comprehensive psychosocial approaches are more effective than the older, single-strategy approaches (e.g., didactic, affective, alternative). However, it is also evident that much remains to be done and that important questions remain. In particular, strong questions are being raised about how well and how long the effects of prevention programs persist. Clearly, further rigorous longitudinal research is essential to answering these questions.

The bibliography lists documents, with their abstracts, alphabetically by author (with references according to APA style). The indices follow: a topic index with entries for subjects, specific drugs, and specific populations covered, and a separate document type index (Survey, Longitudinal survey, Discussion, Program evaluation, etc.). Index terms which designate population types (e.g., high school students, dropouts, Native Americans), and geographic areas (state names and some regional terms) refer to research or other literature which specifically discusses those populations. The topic index was developed using a revised version of the thesaurus originally created for *Substance Abuse Index and Abstracts*.[1] Both indices list document numbers rather than page numbers.

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[1] Austin, Gregory, Executive Editor. *Substance Abuse Index and Abstracts. Alcohol, Drug, and Tobacco Research, 1986-1987*. New York: Scientific DataLink, 1989. 5 vols.

Author abstracts tend to be limited to a summary of the findings saying little about implications for practice or further research. While this guide draws on existing author abstracts, these abstracts were revised and expanded to better inform our readers, especially in regard to implications for further prevention research and practice. Many new abstracts were written specifically for this annotated bibliography.

In developing this guide, an extensive literature search was conducted through the major computerized databases which contain drug literature, particularly ETOH, produced by the National Institute on Alcohol Abuse and Alcoholism, and MEDline, the Surgeon General's index. The ERIC database was also extremely valuable. The body of research identified in this manner was expanded by manual searches through books, publishers' lists, and printed current awareness bibliographies—this was very important given the time-lag in updating the databases. This bibliography also benefitted from an arrangement with the Drug Information Center, by which they provided the author copies of relevant new articles as they received them for database entry. The sources available through the National Clearinghouse for Drug and Alcohol Information were particularly valuable. The bibliography was compiled and indexed through an in-house bibliographic database at the Southwest Regional Laboratory which is maintained and managed by the first author.

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BIBLIOGRAPHY

1 Aboud, M. J. (Ed.). (1993, March). ***Prevention abstracts: Current research on prevention issues***. Louisvillle, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Selected research on alcohol, tobacco, and other drug prevention is presented in abstracts, in a format intended to aid educators and prevention professionals.

2 Aboud, M. J. (Ed.). (1994, March). ***Prevention abstracts: Current research on prevention issues***. Louisville, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Selected research on alcohol, tobacco, and other drug prevention is presented in abstracts, in a format intended to aid educators and prevention professionals.

3 Adlaf, E. M., Smart, R. G., & Walsh, G. W. (1993). ***Ontario student drug use survey: 1977-1993***. Toronto [Canada]: Addiction Research Foundation of Ontario.

Students (N = 3,571) in grades 7, 9, 11 and 13, from 25 Ontario school boards, 165 schools and 233 classes participated in a survey examining their use of alcohol and other drugs, conducted in the spring of 1993. The students' participation rate was 77%. This study also compares these 1993 data with those from eight surveys conducted every second year since 1977, making it the longest systematic study of drug use among youth in Canada.

The declines in drug use that have occurred during the past decade came to an abrupt halt between 1991 and 1993. Between these last two surveys: (1) the medical use of tranquilizers decreased, from 2.9% to 2.2%; (2) the use of solvents increased from 1.6% to 2.3%; (3) the medical use of stimulants increased from 2.6% to 4.0%; (4) the medical use of barbiturates increased from 2.2% to 3.0%; (5) the use of "Ecstasy" (MDMA) increased from 0.3% to 1.6%; and (6) the percentage of students reporting injection drug use dropped from 7.1% in 1991 to 5.4% in 1993.

Increases in drug use were found more often among males, Grade 7 students, and students from Western Ontario. Despite several increases in drug use between 1991 and 1993, for all of the 17 drugs surveyed, rates of drug use in 1993 are significantly lower compared with the late 1970s or early 1980s. The three drugs most widely used during the past year — alcohol, tobacco, and cannabis — all showed significant long-term declines between 1979 and 1993 with: (a) alcohol declining from 76.9% to 56.6%; (b) tobacco declining from 34.7% to 23.8%; and (c) cannabis declining from 31.7% to 12.7%.

The percentage of students reporting the use of no drugs (including alcohol and tobacco) increased from 17.4% in 1979 to 36.9% in 1991. Between 1991 and 1993 this percentage remained stable, with 36.4% reporting no drug use. Although gender differences in drug use have weakened over the past decade, the number of differences are still moderate, with 5 of the 17 drugs showing gender differences. The most disturbing change in drug use occurred among Grade 7 students. For this group, use of 5 of the 17 drugs (including alcohol and cannabis) increased significantly between 1991 and 1993. In comparison, use of only two drugs increased among 9th graders (and use of two drugs declined) and use of one drug increased among 13th graders (and one decreased in use). This age-related shift in drug use was also found recently in a nationwide survey of about 18,000 American 8th graders. Our data clearly show that between 1991 and 1993, normative attitudes regarding drug use changed disproportionately among Grade 7 students. The percentage of 7th graders strongly disapproving of people drinking daily, trying cocaine or using cannabis decreased significantly.

Another noteworthy change is that of an upswing in the use of LSD and other hallucinogenic substances, especially among older students. Although use of LSD did not change significantly among the total sample, use did increase significantly among males, and PCP use showed a small but significant increase among Grade 13 students. Also, use of MDMA increased among Grade 13 students between the last two surveys. Also, we should not forget that LSD is the second most widely used illicit drug, second only to cannabis. Increased hallucinogen use has also occurred recently among American students.

The long-term declines in drug use are dramatic: between 1979 (peak year for most drug use) and 1993, all of the 17 drugs show significant declines. Moreover, more students in 1993 used no drugs (including alcohol and tobacco) than did students in 1979, and of those who used some drug, more in 1993 restricted their use to alcohol. The age of first use of alcohol, tobacco, and cannabis had increased substantially, and drinking and driving by students had declined by more than half. Despite these encouraging long-term trends, one disturbing finding is that little progress has been made in reducing tobacco use since 1985. Whether a given drug creates problems depends not only on the percentage using but on the odds of dependency and other hazards as well. Thus, we cannot ignore the harm caused by drugs that are used by a small group of people. Still, it is the legal drugs that are responsible for the greatest harm to the physical, psychological, and social well-being of youth. Our data show about 157,200 (17%) of students smoke daily, 16,600 (1.8%) smoke more than 20 cigarettes daily, 22,200 (2.4%) consume five or more drinks on a single occasion about once a week, 41,600 (4.5%) come into contact with the police because of drinking, and 12,000 (1.1%) have sought medical attention because of their drinking.

4 Adrados, J. R., & Harrison, L. (1993). **Adolescent drug use in Madrid and in the United States of America.** *Contemporary Drug Problems, 20*(1), 93-131.

Drug use by adolescents in Madrid, Spain and in the U.S. is compared, using research data derived from two surveys in Madrid (the Madrid High School survey and the Madrid General Population Survey), and from two in the U.S. (the Monitoring the Future survey and the National Household Survey on Drug Abuse). Use of alcohol, cannabis, hard drugs, inhalants, amphetamines, and other stimulants, as well as prescription drugs including sedatives, tranquilizers, and analgesics, were compared along with attitudes toward the use of drugs, age of first use, drug availability, and stages in drug use. It is noted that in Spain drug laws have been significantly relaxed, while in the U.S. drug possession is illegal and prosecution and penalties have been increasing. It is concluded that there are striking parallels in patterns of adolescent drug use in the two countries, although there was a higher proportion of Madrid youths who smoke cigarettes and use analgesics. Also, Madrid youths were more likely to drink alcoholic beverages on a daily basis. U.S. youths used cocaine, hallucinogens, amphetamines, sedatives, and inhalants at a significantly higher rate than did Madrid youths. Cannabis was the most widely used illicit drug in both countries.

5 Arella, L. R. (1993). **Multiservice adolescent programs: Seeking institutional partnership alternatives.** *Journal of Youth & Adolescence, 22*(3), 283-295.

Data are presented that show a high degree of overlap in the needs of different client bases, and this overlap points to the demand for more comprehensive programming than is feasible within any one system. An interagency partnership currently underway is discussed. The program is aimed at providing treatment to young substance abusers, as well as education and vocational skills training and residential and other support services. Initial retention rates in the program are promising.

6 Arredondo, R., Streit, K., Springer, N., & Murray, C. K. (1993). **Ethnic and cultural factors in substance abuse: Diagnosis, treatment, and prevention.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 263-276.

The importance of multicultural training must be recognized by the health care provider as being a key component in the effectiveness of any diagnostic, treatment, or prevention service for substance abuse. Even with mounting interest in and knowledge about ethnic minorities' drug use, stereotypes are still used to generalize the behaviors of an entire minority population. Health care professionals providing services for racial and ethnic minorities must also consider the content of the cultural values, traditions, attitudes and beliefs, degree of acculturation, family conflict, and personal role conflict. The conceptual advances of risk factors in ethnic minorities concerning substance abuse generally take three basic approaches: cultural content, cultural interaction, and general life-style changes that are assumed to be "high-risk" factors with alcohol and other drug abuse. Just to know that Asians use less alcohol than Whites is not enough, but if it were found that the difference is related to variant cultural attitudes toward drinking behavior, then that finding would have implications for prevention and intervention.

7 Ary, D. V., Tildesley, E., Hops, H., & Andrews, J. (1993). **The influence of parent, sibling, and peer modeling and attitudes on adolescent use of alcohol.** *International Journal of the Addictions*, 28(9), 853-880.

A one-year prospective study of 173 families with two or more children examined the influence of parent, sibling, and peer modeling (i.e., use) and attitudes on adolescent use of alcohol. Independent questionnaire data were obtained from the adolescent, father, mother, and sibling(s). Structural equation modeling methods were employed to examine these relationships. Parent attitudes toward youth alcohol use and parent modeling of alcohol use were strongly related to change in adolescent alcohol use, suggesting that parents can influence the future use of alcohol by their children. Peer and sibling modeling and peer attitudes also influenced adolescent alcohol use.

8 Austin, G., Oetting, E. R., & Beauvais, F. (1993, June). ***Recent research on substance abuse among American Indian youth.*** (Prevention research update 11). Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

A review of the research shows that developing effective prevention programs for American Indian youth will be a complex and difficult undertaking. An overall solution to the problem will need action at all levels from improving the basic socioeconomic status of Indians to creation of specific programs for individual groups of Indian youth. It is probably impossible to do everything that needs to be done at once, so priorities will need to be set. These priorities must involve determining what is practical and feasible, as well as decisions about what may be most immediately effective. The high levels of AOD use found among reservation youth are probably due to those characteristics that lead to increased numbers of risk factors for individual youth. These problems are chronic for Indians in our society and for Indian tribes. One of the most damaging risk factors, for example, is family disruption and dysfunction, and those family difficulties may be derived, in part, from socioeconomic tribal problems.

It may be a long time before unemployment, prejudice, and general lack of opportunity can be conquered, but they should not be ignored as primary causes of the problems of Indian families and their children. In the meantime, 12 recommendations are offered: (1) reservation families need to be strengthened so they can provide the support and assistance their children need; (2) treatment for adult alcoholism needs to be available and effective; (3) tribes need to provide parents with cultural programs and activities to enhance the parents' cultural identification and show the parents that alcohol and drug use are not in accord with the Indian way; (4) opportunities need to be found to strengthen family ties and to increase communication of sanctions against alcohol and drug use; (5) the strengths of Indian culture need to be identified and utilized and biculturalism promoted; (6) when parents are not providing adequate support and monitoring of their children, the extended family needs to be brought into play; (7) children who are not doing well in school need to be identified and ways found to improve their school adjustment and keep them in school; (8) school-based prevention programs that teach social and behavioral skills and that are carefully designed and tailored to be culturally appropriate can be effective for Indian youth; (9) student assistance, COA, and other support and referral intervention services need to be expanded to help youth cope with current risk factors, and to promote positive youth development; (10) for youth who have already initiated AOD use, efforts need to be undertaken to help them stop use or reduce it and the harm associated with it; (11) peer clusters need to be taken into account, including the membership of close relatives within these clusters; and (12) methods need to be found to provide more positive alternative activities for reservation youth.

It is critical that all of these efforts be designed specifically for individual tribes or even for subgroups within larger tribes. Indian culture is rich and varied. It offers many opportunities for culturally appropriate activities, for learning cultural values that are antagonistic to substance use, and for developing attitudes and behaviors that strengthen the person. These grow out of traditions and values that may be fundamental to most Indian culture, but that are reflected in different ways and in different activities for individual tribes. If they are to be effective, and if they are to be accepted by American Indians, it is essential that all prevention activities on reservations grow out of local traditions and local culture.

It is important to further explore subgroup differences regarding gender and location. The extremely high rates of use among Indian adolescent females compared to females—and even males—of other ethnic groups suggest that programs specifically targeting the risk factors and patterns of use associated with females may need to be developed. Similarly, more information is needed to guide the development of programs targeting nonreservation, urban youth.

The early use onset by many Indian youth shows that there is a need for these programs quite early, but early prevention by itself it not enough. Constant and continuous exposure is needed to maintain the effects. In addition, programs aimed at reducing use and use-related harm among high-risk users are as important as primary prevention.

9 Austin, G., & Pollard, J. A. (1993, June). ***Ethnicity and substance abuse: Recent research findings.*** (Prevention research update 10). Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

Although minorities are often identified as at high risk for substance abuse, the epidemiological research indicates that, at least among students, Whites tend to report higher prevalence rates than other minority groups. The one exception is Native Americans, who appear to be the most at-risk population in the country. The lowest rates for the most common drugs are reported by Asians, with Blacks also typically reporting low levels of use. This should not be interpreted as indicating Hispanic, Black, or Asian youth are not at risk. School-based surveys (and probably to a lesser extent, household surveys) may under-represent those Black and Hispanic youth who are most at risk, including dropouts and youth from poor, inner-city enclaves who face multiple risk factors. Furthermore, there is evidence that minority youth who progress beyond experimentation are at relatively greater risk of AOD-related problems and other problem behavior. Very little attention has been directed at ethnic differences in regard to experimental versus heavy use. Fundamental questions remain about the characteristics of heavy users within each group, and as to whether current prevention efforts are dealing with their problems.

Many factors play a role in accounting for the observed ethnicity differences. In general, the correlational research indicates that among all minority groups AOD problems are more related to the psychosocial factors that they share in common with White youth, rather than anything inherent in subcultural characteristics of the specific ethnic groups. Yet there are still unexplained variations in substance use which warrant further explanation, and that may be related to cultural values, identification, and circumstances. At the same time, it appears that prevention strategies can be enhanced by focusing on areas where groups differ, by paying special attention to group-specific risk and protective factors, and by being culturally competent. For Blacks and Hispanics, parent involvement and strengthening of family ties may be particularly important strategies. It is also important to recognize that even under adverse conditions, there are protective factors which can be promoted to ameliorate otherwise existing risk. Too often the focus of prevention has been on countering risk factors, when enhancing resiliency factors may be even more effective. The personal and social skills programs reviewed appear to be more effective than social influences programs, having been specifically modified to be culturally sensitive and appropriate and to employ a bicultural perspective; whereas, none of the social influences programs reviewed made an attempt specifically to target minority populations. This underscores the value, for enhancing program efficacy, of both cultural sensitivity and promoting cultural pride and identity, especially biculturalism.

These findings highlight the limits of any school-based curriculum by itself in prevention or reducing AOD use among inner-city minority youth. The research indicates that the high level of use among Native Americans and much of the differences in prevalence rates between Whites and minority groups can be attributed to background and lifestyle factors, and that differences between Whites and Blacks would be even greater if the latter lived under circumstances similar to mainstream Whites. Social policies addressing the socioeconomic disadvantage that many minority group youth suffer could have important effects on their drug use.

Research indicates that adverse background factors increase risk of AOD use, and that if minority groups had backgrounds similar to White, middle-class youth, their use would be lower than it is. Given the higher rates of poverty among most minority youth populations, if we are to make an impact on AOD abuse among minority youth, we must begin by dealing with these background factors. With poverty also highly correlated with high rates of school dropout among minorities, failure to address this problem may result in continued concentration of AOD abuse within minority youth under conditions in which it will worsen, and may become intractable. Finally, the evidence of lower rates of use among most ethnic minorities, compared to Whites, suggests that we need to shift our focus away from just the problem of AOD abuse among minorities to consider also what protects them from having higher rates of use in spite of the many risk factors they face.

10 Austin, G., & Roizen, R. (1994, December). ***Alcohol consumption among youth: Current trends and research findings.*** (Prevention research update 12). Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

Gaps in the research and the inconsistencies and uncertainties surrounding the existing data restrict the ability to draw conclusions about the problem of alcohol consumption. Among the problems encountered in assessing youthful drinking across surveys are the differences in age categories, survey methods, and the drinking measures that are employed. This is compounded by the difficulty in interpreting the meaning and significance of youth having tried alcohol, which is normative, compared to having tried an illicit drug, which is not, as well as by the lack of clear and common definitions of what constitutes regular, heavy, or problem use, misuse, or abuse. Finally, what we do know is largely limited to school-based surveys of students. In many communities with high rates of school absenteeism and dropping out, which have been shown to be correlated with higher rates of AOD consumption, the

picture of youthful drinking might be very different. Addressing these data limitations is a fundamental first step for providing the information needed to guide policy and prevention efforts. Still, there are signs that reductions in alcohol use among students are occurring.

The prevention community has long recognized that alcohol education—reducing adolescent alcohol consumption—presents special difficulties. Although results have been more encouraging with the new generation of behavioral psychosocial programs developed from antismoking programs, even they have been far less effective with alcohol than tobacco. The lack of success found in alcohol education program has been attributed, in large part, to the widespread acceptance of drinking in America and the inconsistent messages youth receive about it. The present national decline in per capita consumption, and evidence from some surveys that youth drinking is declining and that attitudes toward alcohol use are becoming less permissive, may signal a shift in the social climate. Or, it could be that the reported declines in drinking may reflect to some degree a decrease in willingness to self-report consumption as attitudes have become more critical. The influence of changes in self-report bias need to be added to the research agenda. Nevertheless, overall, current signs suggest that youth are in the process of moderating their drinking. Regardless, there is no reason to be sanguine about current levels of drinking. In grades 11 and 12, heavy drinking rates are disturbingly high. It appears that about one fifth are drinking weekly, a quarter have recently engaged in binge drinking, and a third are heavy drinkers. If some alcohol experimentation can be expected among youth, something more than this is certainly still occurring.

Most prevention programs are focused on preventing the onset of drinking itself and promoting absolute abstinence. But it is not clear that this goal is attainable, nor that it should be the highest priority. Alcohol experimentation remains almost universal, reported by at least 85% of students). Some adolescent alcohol experimentation appears inevitable. Furthermore, research shows that many youth limit their use to occasional consumption of moderate amounts and many do not progress to consumption of other drugs. For these youth, there is little evidence that their alcohol consumption has any significant long-term adverse effects and may even have some benefits.

On the other hand, research reviewed underscores the importance of delaying initiation as far as possible, and of intervening to prevent the continuation or escalation of drinking and to reduce the prevalence of heavy, regular drinking. The later youth try alcohol, the less likely they are to engage subsequently in regular, heavy drinking or to progress to other drug use. Clearly, too, the escalation of drinking needs to be prevented and the harm associated with it reduced. More attention needs to be directed toward communicating the dangers of regular, heavy drinking and the circumstances in which youth place themselves most at risk from their consumption. Equally important is identifying and helping those youth who are most at risk for becoming regular, heavy drinkers and consequently are at greatest risk for initiating illicit drug use and experience long term harm from their AOD use.

11 Backinger, C. L., Bruerd, B., Kinney, M. B., & Szpunar, S. M. (1993). **Knowledge, intent to use, and use of smokeless tobacco among sixth grade schoolchildren in six selected U.S. sites.** *Public Health Reports, 108*(5), 637-642.

Questionnaires on smokeless tobacco use were completed by 781 6th-grade students in 15 schools at six locations in the United States. The students were both American Indian-Alaska Native and non-American Indian-Alaska Native. The Indian and Alaska Native children were experimenting with and regularly using smokeless tobacco at higher rates that non-Indian children. At Indian Health Service sites, 28.1% of the children reported current use of smokeless tobacco, compared with 3.3% of the children elsewhere. For girls reporting smokeless tobacco experimentation, the comparison was 68.9% at Indian Health Service sites and 8.7% at non-Indian sites; for boys, it was 79.1% from the Indian sites and 35.4% from the non-Indian sites. For those students who had tried smokeless tobacco, more than half also reported having tried cigarettes. The majority of all 6th-grade students surveyed were aware of the health risks of smokeless tobacco use in that it is an increased risk for cancer.

12 Bailey, S. L., Ennett, S. T., & Ringwalt, C. L. (1993). **Potential mediators, moderators, or independent effects in the relationship between parents' former and current cigarette use and their children's cigarette use.** *Addictive Behaviors, 18*, 601-621.

Research consistently has shown that cigarette use by adolescents is related to their parent's use and to particular characteristics of the family environment, but few studies have examined the linkages between parents' smoking behavior and other family characteristics to explain adolescents' smoking. In this study, mediator, moderator, and independent models were tested for their ability to characterize the relationship between parents' and their children's

smoking. A sample of 719 matched pairs of parent (usually mother) and child was used. Respondents were part of an ongoing randomized evaluation of the Drug Abuse Resistance Education (DARE) Project in Illinois, and the subset of date used in these analyses was collected in 1991, when the youths were in the 6th or 7th grade. Results of logistic regression provided the greatest support for the independent model, which suggests that the effects of parents' smoking and familial characteristics on adolescents' smoking are not linked. Results also supported those found by other researchers by showing that parents' former smoking is associated with adolescents' current smoking. Significant family characteristics were family disunion and parents' awareness of their child's activities. These results suggest, in part, that children at any age may have the capability of storing memories of their parents' smoking, memories that influence their own smoking; also, characteristics of the family environment, independent of parents' smoking behavior, have an effect on adolescents' smoking. Prevention implications and recommendations are also discussed.

13 Bailey, S. L., & Rachal, J. V. (1993). **Dimensions of adolescent problem drinking.** *Journal of Studies on Alcohol, 54*(5), 555-65.

Issues involved in defining and measuring adolescent problem drinking have occupied the attention of alcohol researchers since the mid-1970s. However, appropriate definitions and measures of problem drinking remain important and unanswered conceptual and research questions. The research reported in this study was designed to address these issues by identifying multiple dimensions of adolescent problem drinking and examining correlates of these dimensions using multivariate regression models. A longitudinal sample of 2,771 students who had tried alcohol was used in these analyses. The sample was followed over three waves of data collection, between 1985 and 1990, in middle and high schools located in a southeastern U.S. county. Data from the third wave were used to characterize problem-drinking behavior. Results of exploratory factor analyses supported the conclusion made by others that adolescent problem drinking is a multidimensional phenomenon. Three dimensions measuring: (a) level or frequency of alcohol use; (b) problems related to drinking; and (c) symptoms of dependency were identified and were only moderately intercorrelated. The independent measures used to model the three problem-drinking measures were the same for each model, and the significant predictors and proportions of variance explained by the predictors differed widely across models. Results of the regression models confirmed the uniqueness of the three measures and suggested that the potency of specific risk factors varies for different types of problem drinking. Prevention implications and recommendations for this area of research are discussed.

14 Barnes, G. M., Welte, J. W., & Dintcheff, B. A. (1993). **Decline in alcohol use among 7-12th grade students in New York State, 1983-1990.** *Alcoholism, Clinical and Experimental Research, 17*(4), 797-801.

The prevalence and patterns of alcohol use and alcohol-related problems were measured in two large representative samples of 7th- through 12th-grade students in New York State in 1983 (n = 27,335) and 1990 (n = 23,860). Comparable sampling procedures and measures were used in both surveys. Logistic regression analyses showed that overall drinking, heavy drinking, and alcohol-related problems decreased significantly for the population as a whole; furthermore, all subgroups according to age, gender, and racial/ethnic status showed significant declines in alcohol use and related problems over this time period. The social context of this change is discussed.

15 Barrera, M. J., Li, S., & Chassin, L. (1993). **Ethnic group differences in vulnerability to parental alcoholism and life stress: A study of Hispanic and non-Hispanic Caucasian adolescents.** *American Journal of Community Psychology, 21*, 15-35.

To test Hispanic and Caucasian adolescents' vulnerability to parental alcoholism and life stress, 69 Hispanic and 237 Caucasian adolescents completed measures of life stress, social support, and alcohol use. Their parents reported on the adolescents' psychological symptoms and their own alcohol and substance use. Parental alcoholism and life stress were related to almost all indicators of adolescents' psychological distress and alcohol use. In addition, results showed some evidence that Caucasian adolescents were more vulnerable to the effects of life stress and parental alcoholism than Hispanics. Neither social support nor the higher substance use of Caucasian parents provided a good explanation for this differential vulnerability.

16 Bass, L. E., & Kane-Williams, E. (1993). **Stereotype or reality: Another look at alcohol and drug use among African American children.** *Public Health Reports, 108*(1), 78-84.

The Center for Substance Abuse Prevention's Division of Communications Programs launched its Urban Youth Public Education Campaign in late 1990 to target African American youth in 14 cities with prevention messages about alcohol and other drugs. During the market research phase of the campaign, the Center sought to determine the extent to which inner city African American children are impacted by alcohol and other drugs and how widespread the use of these substances is among younger children. Is it rampant and universal, as some press accounts have it, or are the images portrayed by the news media, by popular movies, and by other communication outlets fueling harmful stereotypes? The campaign's market research consisted of in-depth reviews of the literature, of personal communications, conference proceedings, grant and contract reports, monographs, newspaper and magazine articles, and of national survey results, and the analysis of findings from focus groups conducted with 143 African American children living in several urban environments.

17 Bauman, K. E., & Ennett, S. E. (1994). **Tobacco use by Black and White adolescents: The validity of self-reports.** *American Journal of Public Health, 84*(3), 394-398.

Previous studies concluded that Black adolescents use tobacco and other drugs less than White adolescents. The Black-White differences typically were attributed to variations in background and lifestyle. The objective of the research reported in this paper was to determine whether the presumed difference in tobacco use is due to Black-White differences in the validity of self-reports. We used biochemical measures to compare the validity of self-reports of tobacco use by 1,823 Black and White adolescents and to assess the contribution of variation in validity to Black-White differences in reported tobacco use. Data were taken from a 1985 household survey in 10 metropolitan regions in the southeastern U.S. The sensitivity of Blacks' reports was significantly less than the sensitivity of Whites' reports. The specificity of Whites' reports was significantly less than the specificity of Blacks reports. Much of the Black-White differences in reports of cigarette smoking and tobacco use were due to Black-White differences in validity. Studies of Black-White differences should adjust for the invalidity of reports or acknowledge that much of the difference may be due to measurement error.

18 Bell, R. M., Ellickson, P. L., & Harrison, E. R. (1993). **Do drug prevention effects persist into high school? How Project ALERT did with ninth graders.** *Preventive Medicine, 22*, 463-483. Reprinted by RAND, 1993.

Grade 9 follow-up results are reported for a multisite drug prevention program that curbed both marijuana and cigarette use during junior high. Based on the social influence model of prevention, the curriculum sought to motivate young people against drug use and to teach them skills for resisting prodrug pressures. Thirty schools drawn from eight urban, rural, and suburban communities in California and Oregon were randomly assigned to three experimental conditions: two treatment groups and one control. Students in 20 schools received 11 lessons, 8 during grade 7 and 3 in grade 8; in 10 of the treatment schools, older teens assisted in adult teacher in program delivery. Students were pretested prior to the program (grade 7) and posttested 24 months later (grade 9). Earlier effects on cognitive risk factors (perceived consequences of drug use, normative beliefs, resistance self-efficacy, and expectations of future use) persisted through grade 9 in the teen leader schools; in the condition under which adults taught the lessons without teens, the prior beneficial effects on beliefs largely eroded. However, all of the earlier effects on actual use disappeared by grade 9, regardless of who taught the lessons. Continued reinforcement of earlier lessons may be required to sustain prevention gains through the transition to high school.

19 Berger, J. M., & Levin, S. M. (1993). **Adolescent substance abuse and HIV/AIDS: Linking the systems.** *Journal of Adolescent Chemical Dependency, 2*(3/4), 49-56.

Substance abuse and sexual activity among adolescents place them at significant risk for HIV infection. Epidemiology of HIV infection among adolescents is reviewed along with the need for health care reform to link and integrate substance abuse, mental health, primary care, and HIV/AIDS services systems for adolescents.

20 Blanken, A. J. (1993). **Measuring use of alcohol and other drugs among adolescents.** *Public Health Reports, 108*(5), 25-30.

The development is described of questions related to the use of alcohol and other drugs for the Youth Risk Behavior Surveillance System (YRBSS) questionnaire. The YRBSS Panel participants first identified major short- and long-term health outcomes associated with using these substances. Guided by national health objectives for the year 2000, we developed questions that would elicit information on priority behavioral dimensions of alcohol and other drug use. Although the responses to alcohol and other drug use questions in the YRBSS do not provide an in-depth description of drug use, the system will enable assessment of the relationships among this area of health risk and the other five categories of risk measured by the YRBSS. Information about the interrelatedness of health risk behaviors is critical in developing comprehensive programs that will be effective in reducing health risks among adolescents throughout the U.S.

21 Blume, T. W., Green, S., Joanning, H., & Quinn, W. S. (1994). **Social role negotiation skills for substance-abusing adolescents: A group model.** *Journal of Substance Abuse Treatment, 11*(3), 197-204.

A group model for therapeutic early intervention (secondary prevention) with nonaddicted adolescent substance abusers is proposed, based on a Social Role Negotiation model of substance abuse, integrating concepts from role theory and cognitive developmental theory. The description of the group model, a structured short-term approach, includes a variety of exercises promoting developmental improvement in the essential skills of role-taking, role-making, and definition of the situation. An individualized intervention strategy is proposed for each group member, based on a theory-based taxonomy of substance-related problems. Strategies for using family involvement to support an adolescent group are described.

22 Bosworth, K., & Sailes, J. (1993). **Content and teaching strategies in 10 selected drug abuser prevention curricula.** *Journal of School Health, 63*(6), 247-253.

This paper reports on content and teaching strategies in 10 drug abuse prevention curricula available to public and private schools. While similarities existed among the curricula, they employed a range of content as well as strategies. Interactive teaching strategies needed to implement the curricula include full class discussions, small group activities, brainstorming, and role playing. Due to the complexity of the strategies, the curricula may not provide sufficient background information or training for teacher implementation in the classroom.

23 Botvin, G. J., Baker, E., Botvin, E. M., Dusenbury, L., Cardwell, J., & Diaz, T. (1993). **Factors promoting cigarette smoking among Black youth: A causal modeling approach.** *Addictive Behaviors, 18*, 386-405.

A longitudinal model of Black adolescent smoking was tested using 223 7th-grade students attending public schools in northern New Jersey. Interpersonal and intrapersonal factors were hypothesized to have an impact on Black 7th graders' decision to smoke. After conduting an exploratory Principal Factor Analysis (PFA) using a varimax rotation with the Time 1 data, a structural equation model was developed and refined through successive iterations. The final model revealed friends' smoking to be the most significant predictor of Black adolescent smoking at Time 1, but perceived smoking norms and intrapersonal factors such as decision-making, self-efficacy, and self-esteem at home and at school exerted an important influence on smoking at Time 2. These results suggest that social influence factors may be important early in the smoking initiation process, but factors such as perceived smoking norms and intrapersonal factors may play an important role in maintaining the smoking habit in Black adolescents.

24 Breslau, N., Fenn, N., & Peterson, E. L. (1993). **Early smoking initiation and nicotine dependence in a cohort of young adults.** *Drug and Alcohol Dependence, 33*, 129-137.

We examined the extent to which nicotine dependence and daily smoking might vary by age at first cigarette. The potential confounding effects of sex, race and history of childhood behavior problems were examined as well. A sample of 1,200 was randomly selected from the subset of 21-30-year-old members of a large HMO in the Detroit

SMSA; 1,007 (84%) agreed to participate. Personal interviews were conducted in respondents' homes, using the NIMH-DIS to elicit information on DSM-III-R diagnoses, including nicotine dependence. Controlling for sex and race, persons who smoked their first cigarette at 14 to 16 years of age were 1.6 times more likely to become dependent than those who initiated smoking at an older age ($p = 0.03$). The association was unchanged when history of childhood behavior problems was also controlled. Smoking initiation before age 14 was not associated with increased probability of dependence. Persons who initiated smoking before age 14 had a longer lag time to daily smoking and a lower likelihood of progressing to daily smoking, compared to persons who initiated smoking later on. The findings suggest that, among persons who have ever smoked, there might be two distinct groups in whom the chances of developing dependence are considerably reduced. The first comprises persons who delayed first use until age 17. The second comprises persons who smoked their first cigarettte before age 14, a group in whom the progression to daily smoking might be markedly slower than in persons who initiated smoking when they were older.

25 Brook, J. S. (1993). **Interactional theory: Its utility in explaining drug use behavior among African-American and Puerto Rican youth.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 79-101). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

The family interactional framework and its application to drug use has at least three major characteristics. First, the family is viewed as a system consisting of the potential adolescent drug users, siblings, and parents. This framework emphasizes a close mutual attachment between the parent and child in which the child identifies with the parent and the relationship is characterized by affection and lack of conflict. The second characteristic concerns the interrelationships and interactions of the family system with five significant domains: (a) acculturative influences, examples of which are Black and Hispanic activities and familism (this domain represents an addition to the family interactional framework); (b) ecological factors, such as school environment; (c) the adolescent's personality and behavior traits, such as risk-taking behavior; (d) the domain of peer group attributes, such as deviance; and (e) drug context variables (e.g., friends' drug use and drug availability). The third characteristic of the framework deals with the sequencing of domains that ultimately lead to the adolescent's drug use.

The sample consisted of 695 Black (400 males, 295 females) and 637 Puerto Rican (312 males, 325 females) adolescents in grades 7 through 10. The subjects were selected from 12 schools, primarily in the East Harlem area of New York City. The schools were specifically chosen to obtain a sufficient number of Black and Puerto Rican students living in inner-city areas. The subjects were asked to volunteer during classroom orientation sessions. Those who agreed signed consent letters. Passive consent letters were then sent to their parents. Each student who participated received a tape player as an incentive. In one school, $6 vouchers for use in the school store were substituted. The family interactional model tries to differentiate among four dimensions of acculturation: (a) language preference and usage; (b) cultural heritage; (c) ethnic pride and identity; and (d) interethnic interactions. This acculturation may be multidimensional. In assessing its effects, it must be remembered that acculturation involves the assimilation of the new culture by individuals at the same time that they retain the values of their origin.

The data presented here, as well as in a number of unpublished analyses, indicate that acculturation does not have a direct effect on an adolescent's drug use. It may be that the measuring instruments were not sensitive enough to assess the multidimensional nature of acculturation. Another possibility is that acculturation is complex and needs to be looked at in interaction with other risk factors. Preliminary analyses based on unpublished data suggest that acculturation proper serves as a buffer for risk factors such as unconventionality and negative peer influence. Firmer conclusions regarding the interactional nature of acculturation await further analyses. Despite these limitations, the study has several important results. A major finding of this research is that single risk factors from each of the domains are also related to drug stage for both Blacks and Puerto Ricans. Major risk factors include risk-taking behavior and lower achievement (in the personality area), less mutual attachment (in the family domain), low peer achievement (in the peer domain), peer drug use (in the drug context domain), and school environment (in the ecology area). In general, it appears that many of the risk factors associated with drug use are significant in both Blacks and Puerto Ricans. Moreover, as previously noted, the causal pathways are similar in both ethnic groups. The importance of family protective factors are highlighted by the study's findings that they serve as buffers for risk factors stemming from four major areas: drug context, peer, ecology, and acculturation. These family protective factors are operative in both groups.

26 Brook, J. S., Whiteman, M., & Finch, S. (1993). **Role of mutual attachment in drug use: A longitudinal study.** *Journal of the American Academy of Child and Adolescent Psychiatry, 32*(5), 982-9.

This study examines childhood aggression, mutual attachment, and later drug use. Data on 397 children and adolescents were collected at three points in time. At T1, mothers of children aged 5 to 10 years participated in structured face-to-face interviews in their homes. At T2, eight years later, and at T3, after another two and one-half years, both mothers and children were interviewed separately. Cross-sectionally, lack of attachment at both T2 and T3 were associated with unconventionality, which was associated with drug use. Longitudinally, mutual parent-child attachment was found to affect later drug use through three stabilities: (a) the stability of attachment during adolescence; (b) the stability of unconventionality during adolescence; and (c) the stability of drug use during adolescence. The multiple pathway perspective on drug use poses a number of ways in which to think about interventional approaches. First, interventions may be targeted toward those risk factors showing the strongest relations with later drug use. A second mode of orientation to intervention would deal with the amenability of the target to particular interventional agents. Interventions may be geared to intraindividual characteristics or may focus more attention on familial characteristics. A third way of considering interventions, as suggested by the developmental pathways to drug use, seeks to address the temporal order of risk factors leading to drug use.

27 Brooks, C. R. (1994). **Using ethnography in the evaluation of drug prevention and intervention programs.** *International Journal of the Addictions, 29*(6), 791-801.

As more community-based substance-misuse prevention and intervention programs are funded by government and private agencies, innovative evaluations based on quantitative experimental designs are not enough. Without discarding the use of statistically analyzed survey instruments, a triangulate evaluation approach centered on ethnographic fieldwork has proven successful in fulfilling this need. This paper discusses changing attitudes about ethnography in the evaluation field, describes the development and usefulness of ethnography in evaluation research, and reports on the incorporation of ethnography as part of a triangulation evaluation design as used by National Development and Research Institutes, Inc.

28 Buford, B. (1993). ***Shining stars: Prevention programs that work.*** Louisville, KY: Southeast Regional Center for Drug-Free Schools and Communities.

Prevention programs in the Southeastern United States that appear to be producing favorable effects are described.

29 Bukstein, O., & Kaminer, Y. (1994). **The nosology of adolescent substance abuse.** *American Journal on Addictions, 3*(1), 1-13.

Past and current efforts at defining psychoactive substance use problems are reviewed, and the relevance of these efforts to adolescents is explored. Despite a consensus view that an epidemic of drug and alcohol abuse exists in adolescents, there is little agreement about the definition of adolescent substance-abuse disorders. Current diagnostic classifications and criteria for substance abuse and dependence are often inadequate in describing the clinically relevant patterns of substance use in adolescents. A discussion of future directions in the nosology of adolescent substance abuse focuses on the need for the development of a valid, meaningful classification system for substance use problems, using data from studies of prevalence, natural history, genetics, and treatment outcome among youth.

30 Burnett, K. F., & Kleiman, M. E. (1994). **Psychological characteristics of adolescent steroid users.** *Adolescence, 29*(113), 81-89.

The Millon Adolescent Personality Inventory and the Profile of Mood States were used to assess a broad range of psychological characteristics in 24 adolescent athletes who reported steroid use. In addition, a steroid knowledge questionnaire was administered and an evaluation of physical symptoms of steroid use was conducted. Corresponding data were obtained from 24 adolescent athletes who did not use steroids and 24 nonathletic adolescents. Although some personality variables differentiated between athletes and nonathletes, no personality variables significantly differentiated between athletes who used steroids and athletes who did not use steroids. Steroid users, however, had significantly higher levels of muscular density and hardness, bloating, gynecomastia, and acne than did athletes who did not use steroids; steroid users who were currently on a steroid use cycle had significantly more depression, anger,

vigor, and total mood disturbance than those who were not on a cycle. Prospective longitudinal studies are needed to develop our understanding of psychological issues related to adolescent steroid use.

31 Bush, P. J., D'Elio, M. A., Peoples, C. D., & Schell, H. M. (1993). **Surveying and tracking urban elementary school children's use of abusable substances.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 280-297). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

For the longitudinal drug study described here, the authors and colleagues first surveyed almost all the 4th-grade students and about 20% of the 5th-grade students in 111 District of Columbia public schools in 1988-89. About 86% of the students self-identified themselves as African American, 4% as White, 4% as Hispanic, 1% as Asian, and 5% as unknown or other. These 6,000 students were resurveyed through 1991-92 and tracked into junior high school. The purpose of this chapter is to describe the methods used to collect data and track the students who remained in the Washington, DC, public school system during this period.

32 Caputo, R. A. (1993). **Volatile substance misuse in children and youth: A consideration of theories.** *International Journal of the Addictions, 28*(10), 1015-1032.

A paucity of research exists in the social sciences regarding the theories explaining volatile substances misuse behavior in children and adolescents. Volatile substances include solvents and inhalants such as modeling glue, aerosol sprays, and gasoline. The explanations found in the literature neither sufficiently nor adequately explain possible motivation and causation. Cultural ideas about life and alcohol as perceived by adult community members are significant contributing and motivating variables in children's choices to misuse volatile substances. The social forces within cultural frameworks must be acknowledged to better understand youthful choices to misuse substances.

33 Carifio, J. (1993). **Sensitive data and students' tendencies to give socially desirable responses.** *Journal of Alcohol and Drug Education, 39*(2), 74-84.

This article reports on the development and validation of two parallel short forms of the Crandall Social Desirability Scale for Children (CSDTC) using factor analytical instrument reduction techniques. These two parallel short forms should be of use to those who do research on sensitive and/or controversial topics such as alcohol and drug usage by questionnaire or interview techniques. The full, 48-item version of the CSDTC was administered to 356 6th- and 8th graders in a middle school in the greater Boston area, along with several other instruments.

34 Catalano, R. F., Hawkins, J. D., Krenz, C., Gillmore, M., Morrison, D., Wells, E., & Abbott, R. (1993). **Using research to guide culturally appropriate drug abuse prevention.** *Journal of Consulting and Clinical Psychology, 61*(5), 804-811.

Several ways in which research can be an important tool in creating culturally appropriate prevention programs are suggested. To illustrate cultural variability, we present data from a study of 5th-grade Black and White students. These data describe rates of early initiation, levels of exposure to identified risk factors, and degree to which identified risk factors predict substances initiated. Results indicate that European-American subjects have higher rates of tobacco and alcohol initiation, that the same risk factors predict the variety of substances initiated for Black and White subjects, and that several differences exist in the level of exposure to risk factors between the 2 groups. Implications of the findings for developing culturally appropriate drug abuse prevention are discussed.

35 Center for Substance Abuse Prevention. (1993). ***Prevention strategies based on individual risk factors for alcohol and other drug abuse.*** (CSAP Technical Report 7). (DHHS Publication No. SMA 1996-93). Washington, DC: U.S.Government Printing Office.

While there is some consensus regarding general risk factors, identifying which individuals with specific risk factors will succumb to AOD use is not clear. The consensus that exists regarding risk factors paints a picture of the young user as one who may not be well-integrated into the accepted support structure of traditional societal institutions. On the other hand, he or she may be exceedingly well-integrated into a nontraditional, delinquent, or problematic peer network, or may be wholly alienated. Although a common core of factors seem to place a youth at risk for AOD use, a number of societal/cultural factors may mediate an individual's risk. Recently, there has been heightened interest in identifying the incidence, prevalence, and etiology of AOD abuse among ethnic/racial populations. Although cultural affiliation may inoculate individuals from AOD abuse for some time or prescribe the type of illicit drugs used and the patterns of use, it is also clear that as acculturation occurs and youth are exposed to peers from outside their culture or to peers from within their culture who have become acculturated to the broader society, peer association variables play an increasingly important role in the decision of how, when, and why to use AOD. Therefore, the general consensus is that a core of shared factors place all youth at heightened risk for AOD use; however, both prevention and treatment efforts clearly could be improved by exploiting prosocial cultural settings and values.

36 Center for Substance Abuse Prevention. (1993). ***Young teens: Who they are and how to communicate with them about alcohol and other drugs.*** (DHHS Publication No. SMA 93-2033). Washington, DC: U.S. Government Printing Office.

Marketing concepts are reviewed that will reach youth and provide them with the information and skills they need to make wise decisions and to grow up in healthy ways in a world of challenges. Our communities risk losing the value of an educated, contributing citizenry unless the needs of all children and youth are addressed through coordinated programs of appropriate services and resources. Together, local, state, and federal resources can make the difference.

37 Centers for Disease Control and Prevention. (1994). **Guidelines for school health programs to prevent tobacco use and addiction.** *MMWR: Morbidity and Mortality Weekly Report, 43*(RR-2), 1-18.

Tobacco use is the leading cause of preventable death in the United States. The majority of daily smokers (82%) began smoking before 18 years of age, and more than 3,000 young persons begin smoking each day. School programs designed to prevent tobacco use could become one of the most effective strategies available to reduce tobacco use in the United States. The following guidelines summarize school-based strategies most likely to be effective in preventing tobacco use among youth. They were developed by CDC in collaboration with experts from 29 national, federal, and voluntary agencies and with other leading authorities in the field of tobacco-use prevention to help school personnel implement effective tobacco-use prevention programs. These guidelines are based on an in-depth review of research, theory, and current practice in the area of school-based tobacco-use prevention. The guidelines recommend that all schools: (a) develop and enforce a school policy on tobacco use; (b) provide instruction about the short- and long-term negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills; (c) provide tobacco-use prevention education in kindergarten through 12th grade; (d) provide program-specific training for teachers; (e) involve parents or families in support of school-based programs to prevent tobacco use; (f) support cessation efforts among students and all school staff who use tobacco; and (g) assess the tobacco-use prevention program at regular intervals.

38 Chelimsky, E. (1993, March 31). ***Drug education: Limited progression program evaluation: Testimony before the Subcommittee on Select Education and Civil Rights, Committee on Education and Labor, House of Representatives.*** (GAO/T-PEMD-93-2). Washington, DC: U.S. General Accounting Office.

The 1989 amendments to the Drug-free Schools and Communitites Act required states to evaluate the effectiveness of local district programs and also required districts to report to the state on the method used to evaluate their own efforts and the results of such evaluation. The GAO read reports submitted in 1992, covering 1989-91, from 10 states chosen at random, and found the same weaknesses in study design and data that observers saw in past years. Of the 10 states, only 3 reported that they evaluated local programs' effectiveness, and their methods were not strong. In addition, three states said that local districts had evaluated program effectiveness, but methods again were weak in two of these three. The states' biennial reports of their own evaluations of projects under the governors' segment of DFSCA showed somewhat more activity (with five states reporting completing effectiveness studies in the period 1989-91). But GAO judged the methods here weak again; no report described effective programs based on sound data.

The scale of federal investment — $1.5 billion in the last 3 years alone for the SEA and governors' programs — requires better progress in evaluation than we have observed. Where we saw some evaluation, the methods used were weak, producing little reliable information. The fundamental barrier to more and better evaluation is the fact that most funds are allocated by formula — without any need to know what works. Now may be the time for a new approach that includes more deliberate targeting.

A school that wants to be recognized is on notice that a review criterion will be "documented evidence that it is making progress in reducing" drug use and incidents of violence and disruptive behavior. This field clearly faces two major challenges of evaluation method and capacity: (a) determining the results of prevention programs; and (b) stimulating evaluation by state and local agencies. These two are always hard to do, and progress has been limited. We have found promising efforts; others have successfully met the evaluative challenge; and with so much programmatic activity, it seems reasonable to believe that there are effective efforts in schools and communities to be measured, understood, and replicated. Progress in evaluation is essential, and it is certainly more difficult when a funding agency gives scant guidance. Yet major funding needs to rest on evidence of impact.

39 Committee on Substance Abuse of the American Academy of Pediatrics. (1993). **Role of the pediatrician in prevention and management of substance abuse.** *Pediatrics, 91*(5), 1010-3.

Inquiry into age-appropriate psychosocial history, such as family and peer relationships, academic progress, nonacademic activities, behavior, acceptance of authority, degree of self-esteem, and ongoing or past intrafamilial or extrafamilial episodes of child abuse, may reveal risk factors for future or present substance abuse. Confidential inquiry regarding the extent of tobacco, alcohol, and other drug use of peers and family should be a part of the routine history of every child in the upper elementary grades who is seen for periodic health care. Inquiry regarding the extent of tobacco, alcohol, and other drug use, as well as sexual activities, should be a part of the routine history of every teenager presenting for periodic health care. It is essential that pediatricians be knowledgeable, objective, and able to relay to adolescents and their families accurate information on the health and safety hazards of such drug use.

40 Committee on Substance Abuse of the American Academy of Pediatrics. (1994). **Tobacco-free environment: An imperative for the health of children and adolescents.** *Pediatrics, 93*(5), 866-8.

Children exposed to cigarette smoke (especially from birth to 2 years of age) have an increased risk of a variety of medical disorders. Cigarette smoking by children and adolescents causes the same variety of respiratory problems experienced by adults, including chronic airway irritation, cough, and lower respiratory-tract infection. The use of smokeless tobacco has demonstrated a recent upswing in popularity and is used by approximately 11% of high school students nationwide. Role modeling and advertising by the powerful tobacco industry are responsible in part for the high level of use of tobacco products by youth. Although sale of tobacco products to children is illegal in 48 states and the District of Columbia, the industry realizes some 221 million dollars annually from such sales. Inquiry into tobacco use and smoke exposure should be a routine part of both the prenatal visit with parents and every appropriate pediatric health supervision visit. As important role models, physicians should not smoke or use tobacco products, especially in the presence of their patients. They should be firm advocates of nonuse by children and their parents. They should inform smoking parents of the dangers of ETS and the implications and

complications of exposing their children to tobacco smoke. Information about available smoking cessation assistance should be offered. Discussion and anticipatory guidance about smoking and tobacco use should begin well before the patient enters junior high school, with particular emphasis on the importance of resisting the influence of advertising and the peer group. Pediatricians should work to promote smoke-free environments in physician offices, hospitals, schools, and other public places.

41 Cooper, M. L., Peirce, R. S., & Huselid, R. F. (1994). **Substance use and sexual risk taking among Black adolescents and White adolescents.** *Health Psychology, 13*(3), 251-262.

Analyses of data from a random sample of 1,259 sexually active adolescents revealed that substance use was associated with increased sexual risk taking on two occasions of intercourse (first intercourse ever, and first intercourse with most recent partner), even after controlling for demographic, experiential, and dispositional confounders. Within-persons analyses yielded similar results, indicating that adolescents who used substances on one of the two occasions reported higher levels of risk taking on the occasion when substances were used than on the no-substance-use occasion. However, substance use was both more common and more strongly linked to risk taking among White than Black adolescents, suggesting that White adolescents are at greater risk of negative consequences related to substance use proximal to intercourse.

42 Cornelius, M. D., Richardson, G. A., Day, N. L., Cornelius, J. R., Geva, D., & Taylor, P. M. (1994). **A comparison of prenatal drinking in two recent samples of adolescents and adults.** *Journal of Studies on Alcohol, 55*, 412-419.

The drinking patterns of 124 pregnant teenagers are described and compared with those of 267 pregnant adults attending the same prenatal clinic in Pittsburgh. Adults had a significantly higher average daily volume of alcohol prior to pregnancy than adolescents, but that higher level was no longer significant during pregnancy. However, the rate of binge drinking during the first trimester was higher in the teenage sample than in the adult sample. Rates of binge drinking and heavy drinking were highest among the White teenage group. Use of marijuana and cocaine or crack decreased precipitously during pregnancy for both teenagers and adults. Tobacco use also decreased among the adults, but increased from 56% to 71% during pregnancy in the teenage sample. Based on our findings, patterns of drinking among adult pregnant women do not generalize to pregnant adolescents. Offspring of White adolescents, in particular, may be at higher risk for intermittent high peak alcohol exposure farther into the pregnancy than are offspring of older women.

43 Cummings, K. M., Pechacek, T., & Shopland, D. (1994). **The illegal sale of cigarettes to US minors: Estimates by state.** *American Journal of Public Health, 84*(2), 300-302.

Data available from recent national surveys on the cigarette comsumption and purchasing practices of teenage smokers were used to generate state-specific estimates of the number of teenage smokers and cigarette sales to minors. In 1991, approximately 2.7 million teenage cigarette smokers consumed an average of 28.3 million cigarettes per day (516 million packs per year). An estimated 255 million packs of cigarettes were sold illigally to minors in 1991. To make cigarettes and other tobacco products less accessible to minors, policymakers should consider implementing various legislative and economic measures such as banning cigarette vending machines and raising tobacco excise taxes.

44 Daughety, V. S., Levy, S. M., Ferguson, K. J., Pomrehn, P. R., & Becker, S. L. (1994). **Surveying smokeless tobacco use, oral lesions and cessation among high school boys.** *Journal of the American Dental Association, 125*, 173-180.

We surveyed 821 Iowa teenage boys to establish patterns of smokeless tobacco use, occurrence of oral lesions and the effect of lesions on attitudes about quitting, current use, and plans for future use. Results suggest that young smokeless tobacco users who currently have a lesion or have experienced lesions may be particularly receptive to discussion of quitting options and other information about smokeless tobacco health effects. Dentists and other oral health professionals should initiate intervention when establishing a lesion history or on discovering a lesion at examination.

45 De Piano, F., & Van Hasselt, V. B. (1993). **Literature and resource review, child and adolescent substance abuse: A comprehensive biliography of scholarly references — 1992-1993.** *Journal of Adolescent Chemical Dependency, 2*(3/4), 57-66.

Clinical and investigative efforts in the field of child and adolescent substance abuse have proliferated in recent years. Indeed, professionals from a wide range of disciplines have directed increased attention to strategies and issues in research in this area. The bibliography is divided into four categories: discussion and review papers, assessment, epidemiology, and intervention and prevention.

46 Deffenbaugh, K. B., Hutchinson, R. L., & Blankschen, M. P. (1993). **Substance use among youth (grades 4-12) in rural Indiana: Students' reported use vs. parents' perception of students' use.** *Journal of Alcohol and Drug Education, 39*(1), 19-33.

To assess adolescents' use of substances, and to explore the differences between students' reported use and parents' perceptions of students' use, 2,125 rural Indiana youth (in grades 4-12) were surveyed, as well as their parents. While all parents believed that some students were using substances (i.e., cigarettes, alcohol, and marijuana), they underestimated the percentage of students in their child's grade who reported the use of a variety of substances, especially alcohol. If parents are to be allies in the fight against drugs, it is imperative that they be aware of the dimensions of the problem.

47 Dembo, R., Wiliams, L., Schmeidler, J., & Wothke, W. (1993). **A longitudinal study of the predictors of the adverse effects of alcohol and marijuana/hashish use among a cohort of high risk youths.** *International Journal of the Addictions, 28*(11), 1045-1083.

Data gathered from a longitudinal study of juvenile detainees in a Southeastern state are used to examine the demographic and life experience factors relating to their reported adverse effects of the use of alcohol and other drugs. The results indicate: (a) marijuana/hashish use; (b) their use of these substances tends to be a vehicle for the expression of personal difficulties in the areas of self-esteem and emotional/psychological functioning; and (c) their use of these two substances needs to be seen in holistic terms. Research and policy implications of the results are drawn.

48 Dembo, R., Williams, L., Fagan, J., & Schmeidler, J. (1994). **Development and assessment of a classification of high risk youths.** *Journal of Drug Issues, 24*(1), 25-93.

Cluster analysis is applied to substance use and delinquency data collected in a longitudinal study of juvenile detainees to empirically derive five groups of youths from information gathered at their initial interviews (time 1): alcohol/marijuana-hashish users, low-level delinquents, alcohol/marijuana-hashish and cocaine-using nondelinquents, high delinquency cocaine users, and heavy cocaine-using nondelinquents. The validity of the typology was supported by a variety of other initial interview and follow-up interview alcohol/other drug use and delinquency data, and by recidivism information including data on arrests during the three-and-a-half years following the date of the each youths' intake interview. Research and policy implications of the findings are drawn.

49 Dembo, R., Williams, L., & Schmeidler, J. (1994). **Psychosocial, alcohol/other drug use, and delinquency differences between urban Black and White male high risk youth.** *International Journal of the Addictions, 29*(4), 461-483.

Data collected on 286 Black and White male youths entering a Tampa, Florida, juvenile detention center, were used to examine differences in their psychosocial functioning, substance use, and delinquency. Comparisons were made on a wide range of variables, including sociodemographic characteristics, family problems, records of contact with the juvenile court, physical abuse or sexual victimization history, alcohol/other drug use, friends' involvement in substance use and crime, and emotional/psychological functioning problems. Results suggest that the greater AOD

use, and problem behavior that brought the White male detainees to the attention of juvenile justice authorities was related to a higher degree of emotional and psychological dysfunction and troubled family background compared to Black male detainees. The troubled behavior of Black male detainees, on the other hand, seemed to be related to social factors such as the crime involvement of their friends, and affiliation with a delinquent lifestyle. Implications of the results for understanding youths' involvement in the juvenile justice system, and for the development of, and linkage with, appropriate services, are drawn.

50 Dembo, R., Williams, L., Schmeidler, J., & Christensen, C. (1993). **Recidivism in a cohort of juvenile detainees: A 3 1/2-year follow-up.** *International Journal of the Addictions, 28*(7), 631-58.

We report some results from a longitudinal study of juvenile detainees. In extending previous analyses, we sought to determine whether the youth's alcohol or other drug use and their emotional/psychological problems at entry into the detention center predicted subsequent arrests for new offenses during the 36 months and 42 months following their initial interviews. Statistically significant relationships were found between the youths' demographic characteristics (age, race, gender) and cocaine use at initial interview (as measured by urinalysis), and recidivism. The policy implications of these findings are discussed.

51 Deykin, E. Y., & Buka, S. L. (1994). **Suicidal ideation and attempts among chemically dependent adolescents.** *American Journal of Public Health, 84*(4), 634-639.

Suicidal ideation and attempts were examined in a population of chemically dependent adolescents, a group at high risk of self-destructive behavior. The prevalence and correlates of suicidality and of major depressive disorder were assessed by the Diagnostic Interview Schedule and a structured family and social history interview with 300 addicts aged 15 through 19 years. Suicidal ideation was reported by 31% to 75% of the subjects and suicide attempts were reported by 28% to 61%, with females predominating. Thoughts of suicide combined with prolonged thoughts of death in general and a desire to be dead were highly associated with suicide attempts. Exposure to physical or sexual abuse was associated with a significantly increased risk of suicide attempts for males but not for females. The probability of a suicide attempt increases when thoughts of suicide coincide with morbid ideation of extended duration, suggesting that risk assessment should be based on duration as well as presence of morbid thoughts. Substance abuse treatment requires an assessment of suicidal potential and counseling for those whose potential is high, with special attention to males exposed to abuse.

52 DiClemente, R. J., Brown, L. K., Beausoleil, N. I., & Lodico, M. (1993). **Comparison of AIDS knowledge and HIV-related sexual risk behaviors among adolescents and low and high AIDS prevalence communities.** *Journal of Adolescent Health, 14*, 231-236.

Data were collected from students attending high school in a rural, low acquired immunodeficiency syndrome (AIDS) prevalence community in Northern California, and compared with students in an inner-city AIDS epicenter (San Francisco). The findings demonstrate that rural adolescents have higher levels of knowledge about human immunodeficiency virus (HIV), especially about risk-reduction strategies. However, rural adolescents also report higher rates of HIV-related sexual risk behavior. Rural adolescents may not perceive the personal salience of practicing HIV risk-reduction behaviors, thus increasing their risk for exposure to sexually-transmitted pathogens, including HIV. School-based HIV prevention programs developed for rural communities will need to enhance the personal salience of HIV for adolescents and discourage their discounting of personal risk attributable to a lower prevalence of AIDS in the community. Physicians must become more actively involved in HIV prevention efforts by routinely assessing adolescent patient's sexual behavior and utilizing their clinical interaction to provide HIV education and promote the adoption of HIV risk-reduction behaviors.

53 Dielman, T. E., Butchart, A. T., & Shope, J. T. (1993). **Structural equation model tests of patterns of family interaction, peer alcohol use, and intrapersonal predictors of adolescent alcohol use and misuse.** *Journal of Drug Education, 23*(3), 273-316.

A survey of 1,340 Michigan students in grades 6 through 12 was conducted to test, in the context of structural equation models, the predictive validity of a theoretical model of antecedents of adolescent alcohol use and misuse. Constructs including parents' alcohol use, older siblings' alcohol use, parents' approval of students' alcohol use, older siblings' approval of students alcohol use, peer use and approval of alcohol use (PUA), parental nurturance, parental permissiveness, child's grade in school, susceptibility to peer pressure (SPP), and deviant self-image, were included. The final iterations of the models accounted for more than half of the variance in both alcohol use and alcohol misuse. In a standardized solution, the two largest direct effects on both adolescent alcohol use and misuse were from SPP and PUA. When a seven-item measure of SPP, including three items specific to alcohol use was used, the SPP latent variable accounted for a somewhat greater percentage of the variance in adolescent alcohol use and misuse than did the latent variable of PUA. When the three alcohol-specific items were deleted from SPP, however, PUA accounted for more variance than SPP. Other predictors, including parental behaviors, proved to be significant when their indirect effects were evaluated. Models predicting alcohol use and alcohol misuse were similar. SPP, PUA, and other significant predictors should be included in future models predicting adolescent alcohol use and misuse, as well as in future interventions targeting these behaviors. Longitudinal studies should be used to test these findings. Evaluation of prevention should include examination of possible interactions of these predictors with each other and with subject subgroup classifications.

54 Dinges, M. M., & Oetting, E. R. (1993). **Similarity in drug use patterns between adolescents and their friends.** *Adolescence, 28*(110), 253-266.

The literature indicates that peer influence is important in understanding adolescent drug use. The nature of peer interactions predicts a high degree of similarity in drug use among friends. To test that hypothesis, a detailed analysis of this correspondence was conducted on a large sample of junior and senior high school students. Findings indicate that a youth who used specific drugs in the last thirty days almost invariably has friends who also use those same drugs, but is considerably less likely to have friends who use other drugs or no drugs. In addition, friends' use is strongly associated with the adolescent's use of marijuana, uppers, cocaine, downers, and PCP across five distinct drug use styles.

55 Dryfoos, J. G. (1993). **Preventing substance use: Rethinking strategies.** *American Journal of Public Health, 83*(6), 793-795.

In response to research showing a lack of long-term effects for some of the most promising of prevention programs, it is suggested that what is needed is a broader range of more comprehensive, integrated programs with multiple components, and that these programs require a broader base than just school systems.

56 Durant, R. H., Ashworth, C. S., Newman, C., & Rickert, V. I. (1994). **Stability of the relationship between anabolic steroid use and multiple substance use among adolescents.** *Journal of Adolescent Health, 15*(2), 111-116.

In a previous study, the hypothesis was tested that because adolescent anabolic steroid users are concerned with increasing muscle size and strength they are different from other substance users and are unlikely to use other drugs. Alternatively, if the causal factors of anabolic steroid use are similar to those for use of other substances, then adolescent anabolic steroid users would be expected to report poly drug use. Study findings confirmed the second hypothesis. To test the stability of the relationships between anabolic steroid use and polydrug use over a four-month period, all 9th-grade students ($N = 1,422$) enrolled in compulsory health sceince classes in a county school system who had previously completed a modified version of the Centers for Disease Control and Prevention's 1989 Health Risk Survey and the 1990 Youth Risk Behavior Survey in November 1990 were asked to repeat the survey in February 1991. A higher percentage of males (4.7%) than females (2.9%, $p \leq 0.018$) reported anabolic steroid use without a doctor's prescription. As was found in the initial study, frequency of anabolic steroid use was significantly ($p < 0.001$) associated with frequency of use in the last 30 days of cocaine, injectable drugs, alcohol, marijuana, cigarettes, and smokeless tobacco. When those variables were analyzed with multiple regression analysis, the same

four variables continued to be the best predictors of the frequency of anabolic steroid use, although the order that the variables entered into the multiple regression model changed. Use of smokeless tobacco, shared needles, cocaine, and marijuana explained more variation in the frequency of anabolic steroid use in the replication study (48.5%) than initially (32.8%). These findings support the hypothesis that adolescent anabolic steroid users are also likely to use other drugs and are engaging in shared needle use. These relationships remained relatively stable over a four-month period.

57 Durbin, M., DiClemente, R. J., Siegel, D., Krasnovsky, F., Lazarus, N., & Camacho, T. (1993). **Factors associated with multiple sex partners among junior high school students.** *Journal of Adolescent Health, 14*(3), 202-7.

In a sample of 1,919 inner-city junior high school students, 21% were found to be sexually active. Only 31% of them reported a single lifetime sexual partner, 25% reported two partners, and 43% reported three or more partners. Logistic regression analysis evaluated the influence of demographic, psychosocial, and behavioral factors on the adolescents' lifetime number of sex partners. Respondents whose sexual debut occurred before age 13 years were nine times more likely to report three or more sex partners compared with those whose first sexual intercourse was at age 15 or 16 years. Blacks were four times more likely than non-Hispanic Whites to report three or more sex partners; and males were four times as likely as females to report this number of sexual partners. AOD use was not independently associated with the number of sex partners; nor were: age, Asian or Hispanic ethnicity, human immunodeficiency virus (HIV) knowledge, self-efficacy (belief that one can protect oneself from the virus), or condom use. It is concluded that a significant proportion of inschool middle adolescents are sexually active and that most of these are at risk for contracting HIV because of behaviors such as having multiple sexual partners. Topics often stressed in school-based HIV education, such as factual knowledge about HIV, avoiding drugs and alcohol, and condom use are not associated with adolescents' choice about their number of sex partners. Intervention programs will have to identify and then target each specific HIV risk behavior and its motivations in order to reduce adolescents' risks of contracting and transmitting the disease.

58 Edwards, R. W. (1993). **Drug use among 8th grade students is increasing.** *International Journal of the Addictions, 28*(14), 1621-1623.

Among United States 8th-grade students, marijuana and stimulant use declined from 1987 to 1990. Since then, marijuana and inhalant use have increased. Before 1989, marijuana was the most frequently tried drug by 8th graders. Since then, more students have tried inhalants than have tried marijuana.

59 Eggert, L. L., Thompson, E. A., Herting, J. R., & Nicholas, L. J. (1994). **Prevention research program: Reconnecting at-risk youth.** *Issues in Mental Health Nursing, 15*(2), 107-35.

This research program focuses on some of society's most profound problems: adolescent drug involvement, school failure, and suicide behaviors. The program goals address several interdisciplinary research challenges: (a) testing theory-driven preventive interventions focusing on the multifaceted etiology of adolescent drug involvement and suicide potential; (b) targeting potential school dropouts from a distinctly underserved high-risk population; and (c) integrating preventive interventions into school-based programs that utilize a multidisciplinary team of clinicians and researchers. Three sets of studies are described; they illustrate how ethnographic, experimental, and causal modeling designs and methods were intricately woven in successive theory construction and testing steps. Ethnographic and etiologic studies revealed a profile of vulnerabilities in persons' peer, family, and school contexts. Instrumentation studies led to reliable and valid process and outcome measures of key constructs. Tests of the preventive intervention demonstrated its efficacy for decreasing school deviance, drug involvement, and suicide potential among high-risk youth.

60 Eisenman, R. (1993). **Who receives drug education in our schools?: A paradox.** *Journal of Drug Education, 23*(2), 133-6.

Data from a national survey by the U.S. Department of Justice (the 1989 National Crime Victimization Survey) of 47,000 households reveals a paradox regarding who receives drug education in primary and secondary schools. Those who would seem to need it the most are least likely to receive it. Thus, Blacks receive drug education classes less

often (36%) than Whites (40%); students in central city classes less often (35%) than those in other regions (44%), and students who report that drugs are available are also less likely to receive drug education classes (40%) than students who report that drugs are not available (44%).

61 Elder, J. P., Wildey, M., de Moor, C., Sallis (Jr.), J. F., Eckhardt, L., Edwards, C., Erickson, A., Golbeck, A., Hovell, M., Johnston, D., Levitz, M. D., Molgaard, C., Young, R., Vito, D., & Woodruff, S. I. (1993). **The long-term prevention of tobacco use among junior high school students: Classroom and telephone interventions.** *American Journal of Public Health, 83*(9), 1239-44. Comment in pp. 1204-1205.

The purpose of this study was to implement and evaluate the effectiveness of a long-term tobacco use prevention program for junior high school students that used college undergraduate change agents and telephone boosters. A psychosocial intervention combining refusal skills training, contingency management, and other tobacco use prevention methodologies such as telephone and mail boosters was implemented in 11 junior high schools in San Diego County, California. Eleven other junior high schools served as controls. Of the 2,668 participants, 57% were White/non-Hispanic, 24% were Hispanic, and 19% were of other racial/ethnic groups. College undergraduates served as change agents for both the classroom and booster interventions, the latter of which was delivered in the third (9th-grade) year of the program. At the end of the third year, the prevalence of tobacco use within the past month was 14.2% among the intervention students and 22.5% among the controls, yielding an odds ratio of 0.71 for analysis as the school level. Both college undergraduate change agents and direct one-to-one telephone interventions appear to provide cost-effective tobacco-related behavior modification.

62 Elders, M. J., Perry, C. L., Eriksen, M. P., & Giovino, G. A. (1994). **The report of the surgion general: Preventing tobacco use among young people.** *American Journal of Public Health, 84*(4), 543-547.

This year's surgeon general's report on smoking and health is the first such report to focus on young people. From extensive data that indicate that tobacco use is a pediatric epidemic, the report reached six major conclusions: (1) nearly all first use of tobacco occurs by age 18; (2) most adolescent smokers are addicted to nicotine; (3) tobacco is often the first drug used by young people who subsequently use illegal drugs; (4) there are identified psychosocial risk factors for the onset of tobacco use; (5) cigarette advertising also appears to increase young people's risk of smoking; (6) community-wide efforts have successfully reduced adolescent use of tobacco. This commentary restates each of the six conclusions, summarizes the data that support each, and then considers the implications of the conclusions for public health action.

63 Ellickson, P. L., Bell, R. M., & McGuigan, K. (1993). **Preventing adolescent drug use: Long-term results of a junior high program.** *American Journal of Public Health, 83*(6), 856-861.

Although several studies have reported short-term gains for drug-use prevention programs targeted at young adolescents, few have assessed the long-term effects of such programs. Such information is essential for judging how long prevention benefits last. This paper reports results over a 6-year period for a multisite randomized trial that achieved reductions in drug use during the junior high school years. The 11-lesson curriculum (Project ALERT), which was tested in 30 schools in eight highly diverse West Coast communities, focused on helping 7th and 8th grade students develop the motivation and skills to resist drugs. Schools were randomly assigned to treatment and control conditions. About 4,000 students were assessed in grade 7 and six times thereafter through grade 12. Program effects were adjusted for pretest covariates and school effects. Once the lessons stopped, the program's effects on drug use stopped. Effects on cognitive risk factors persisted for a longer time (many through grade 10), but were not sufficient to produce corresponding reductions in use. It is unlikely that early prevention gains can be maintained without additional prevention efforts during high school. Future research is needed to develop and test such efforts.

64 Emery, E. M., McDermott, R. J., Holcomb, D. R., & Marty, P. J. (1993). **The relationship between youth substance use and area-specific self-esteem.** *Journal of School Health, 63*(5), 224-228.

A cross-sectional survey design investigated the relationship of school and home self-esteem to history of substance use, membership in alternative education (nonmainstream) school programs, gender, and race in a sample of 6th-grade students ($N = 411$). Self-esteem was assessed using the Hare Self-Esteem Scale. Results revealed home self-esteem related inversely to tobacco use, alcohol use, and use of other drugs. Similarly, school self-esteem related inversely to tobacco use, alcohol use, and use of other drugs. Regardless of type of drug, recent users had the lowest self-esteem scores on both subscales and never users had the highest scores. Subjects enrolled in nonmainstream programs had significantly lower home and school self-esteem scores than did subjects in mainstream classes. Race and gender were not associated significantly with self-esteem. Implications for youth substance use prevention and research are discussed.

65 Ennett, S. T., & Bauman, K. E. (1993). **Peer group structure and adolescent cigarette smoking: A social network analysis.** *Journal of Health and Social Behavior, 34*, 226-236.

Social network theory and analysis are applied to examine whether adolescents who fill various social positions that characterize peer group structure differ in prevalence of current smoking. Students in grade 9 ($N = 1,092$) in the Guilford, North Carolina school system were asked to name their three best friends, allowing the identification of each adolescent as clique member, clique liaison, or isolate. At four of five schools, the odds of being a current smoker were significantly higher for isolates than for clique members and liaisons. The relationship was not explained by demographic variables or by the number of friends who smoke.

66 Ennett, S. T., Bauman, K. E., & Koch, G. G. (1994). **Variability in cigarette smoking within and between adolescent friendship cliques.** *Addictive Behaviors, 19*(3), 295-305.

Research has consistently shown that adolescent smoking is related to friends' smoking, yet smoking in the context of adolescent peer groups (friendship cliques) has been understudied. Formal network analysis was used to identify 87 adolescent friendship cliques in a sample of 1,092 9th graders at five North Carolina schools. There was intraclique homogeneity and interclique heterogeneity in current cigarette smoking, confirming that smokers tend to be in cliques with smokers and nonsmokers tend to be with nonsmokers. Most cliques were comprised entirely or mostly of nonsmokers, suggesting that friendship cliques may contribute more to the maintenance of nonsmoking than to the onset and maintenance of smoking. Prevention and research implications are discussed.

67 Epps, R. P., & Manley, M. W. (1993). **Prevention of tobacco use during childhood and adolescence. Five steps to prevent the onset of smoking.** *Cancer, 72*(3 supplement),

Most tobacco users become addicted during childhood and adolescence. To reduce the prevalence of tobacco-related illnesses, more emphasis must be placed on preventing the onset of tobacco use. Physicians can play a major role. Based on a series of clinical trials, the National Cancer Institute (NCI) developed recommendations to help patients stop smoking. Behavioral and developmental research have identified factors that contribute to the onset of smoking. The American Academy of Pediatrics (AAP) has developed guidelines for health supervision from birth to adulthood, including engaging parents and children as partners in health care. The NCI recommendations, behavioral research results, and AAP guidelines were integrated to develop a strategy to prevent the onset of tobacco use. The NCI proposes five steps to prevent tobacco use during childhood and adolescence: anticipatory guidance, ask, advise, assist, and arrange follow-up. Anticipatory guidance, the practice of counseling for potential problems, is a key part of health care for the young. The nature of these steps varies, depending on the child's age, developmental stage, and behavior, as well as smoking habits of family members. Despite the long-term consequences of smoking, onset and addiction to tobacco use usually begins in childhood. Therefore, physicians who care for children have a major role in eliminating tobacco use by preventing its onset.

68 Erickson, A. D., Woodruff, S. I., Wildey, M. B., & Kenney, E. (1993). **A baseline assessment of cigarette sales to minors in San Diego, California.** *Journal of Community Health, 18*(4), 213-24.

This study reports the sales rate of cigarettes to minors in San Diego County, and investigates factors associated with cigarette sales to minors in 294 stores, which were identified and recruited to participate in a retailer education effort. To assess the baseline illegal sales rate of cigarettes to minors, selected stores were surveyed by 70 volunteer teams of adults and minors. Questionnaires were also administered to participating store owners or managers to assess retailers' knowledge about laws regulating minors' access to tobacco. Survey results indicated that minors were able to successfully purchase cigarettes in 68% of attempts. In addition, teen gender, community sociodemographics and cashier characteristics were associated with sales to minors. Analyses of the retailer questionnaire indicated retailers knew the legal age to purchase cigarettes, but few knew of the specific penalties associated with sales to minors. These findings indicate that minors have easy access to cigarettes and underscore the need for intensive tobacco sales education for retailers and enforcement of sales to minors laws.

69 Fisher, G. L., & Harrison, T. C. (1993). **The school counselor's role in relapse prevention.** *School Counselor, 41*(2), 120-125.

It is noted that most individuals who receive treatment for alcohol or other drug problems fail to maintain abstinence, and proposed that school counselors should be aware of relapse prevention strategies and use these strategies proactively when adolescents complete any form of alcohol or other drug treatment programs. Intervention strategies for school counselors are discussed, adapted from work using cognitive-behavioral techniques to change addictive behaviors.

70 Flannery, D. J., Vazsonyi, A. T., Torquati, J., & Fridrich, A. (1994). **Ethnic and gender differences in risk for early adolescent substance use.** *Journal of Youth and Adolescence, 23*(2), 195-213.

This study examined interpersonal and intrapersonal risk for substance use in a sample of Caucasian and Hispanic early adolescents. A total of 1,170 Arizona 6th and 7th graders, equally divided by gender, participated. Interpersonal risk was assessed by susceptibility to peer pressure, parental monitoring, peer substance use, parent-child involvement, and school adjustment. Intrapersonal risk was measured via self-efficacy, impulsivity, aggression, depression, and academic achievement. As expected, mean level of use did not differ between ethnic groups. Regression analyses indicated susceptibility to peer pressure and peer alcohol use were the best predictors of individual substance use. These findings were consistent across gender and ethnicity. In all groups, interpersonal variables accounted for more variance in predicting risk (49% for Hispanic males) than intrapersonal variables (0% for Hispanic females). The findings suggest focusing on the interpersonal may be the most appropriate prevention goal for early adolescents. Promising emphases would include: (a) problem solving with peers; (b) making responsible choices (choosing friends responsibly); and (c) developing strategies to deal effectively with pressure from peers to engage in socially undesirable behaviors.

71 Foley, J. D., & Schydlower, M. (1993). **Anabolic steroid and ergogenic drug use by adolescents.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 341-352.

Ergogenic drug use is alluring for many adolescents who desire to improve their physical appearance and athletic performance. Nonmedical usage of anabolic steroids, however, can cause significant medical complications, has addictive potential, is considered unethical in sports competition, and is illegal. A balanced presentation of information about potential risks and benefits of anabolic steroids, as opposed to scare tactics, appears to be an effective educational approach for adolescents. Educational activities that aim to increase self-esteem and promote responsible decision making and problem solving can also be effective as part of a drug abuse education and prevention program. Well-informed physicians and coaches can contribute greatly to the prevention of adolescent ergogenic drug use by participating in that educational process.

72 Ford, K., & Norris, A. (1994). **Urban minority youth: Alcohol and marijuana use and exposure to unprotected intercourse.** *Journal of Acquired Immune Deficiency Syndromes, 7,* 389-396.

This article focuses on the use of alcohol and marijuana in the context of sexual relationships and the impact of these substances on the consistency of condom use by urban, minority youth. Regression models are presented to test for the effects of alcohol and marijuana use with sexual partners while controlling for the effects of respondents' sexual history. The results indicated that when alcohol or marijuana was used with a partner, the consistency of condom use decreased even when other variables related to sexual history were controlled for. Alcohol use had a greater negative effect of condom use for Hispanic females and Black males. These findings argue for the need for targeted safer-sex intervention programs for urban, low-income, minority youth, and suggest that such programs may need to emphasize the increased risk of human immunodeficiency virus exposure that may result from substance use, casual sex, and sex with multiple partners.

73 Fullilove, M. T., Golden, E., Fullilove III, R. E., Lennon, R., Porterfield, D., Schwarcz, S., & Bolan, G. (1993). **Crack cocaine use and high-risk behaviors among sexually active black adolescents.** *Journal of Adolescent Health, 14,* 295-300.

The recent spread of crack cocaine use among inner-city teenagers has been accompanied by dramatic increases in juvenile delinquency and sexually transmitted diseases (STDs) among teenagers. This study examined the prevalence of five factors that promote STD transmission, including human immunodeficiency virus (HIV), among a sample of sexually active Black adolescent crack users and non-users from the San Francisco Bay Area. Significant differences were observed between these groups with respect to history of engaging in sexual intercourse under the influence of drugs or alcohol, exchanging sexual favors for drugs or money, condom use in the most recent sexual encounter, and having five or more sexual partners in the last year. Approximately 63% of all respondents reported engaging in at least one of these risk behaviors. In multiple logistics regression analyses, reporting one or more of these STD/HIV risk behaviors was significantly associated with crack use and having one or more relatives who used drugs. Intervention efforts need to address both individual and environmental risk factors in order to reduce teens' risk for STDs, including HIV.

74 Gabel, L. L., Siegal, H. A., & Hostetler, J. (1993). **Preventing substance abuse: An interview paradigm.** *Journal of Family Practice, 37*(5), 503-505.

Substance use and abuse is a major health problem in the United States affecting adolescents of both sexes and of every socioeconomic level. Family physicians have numerous opportunities to improve the health of future generations by using specific skills and expertise to prevent, identify, and intervene with adolescents' abuse of alcohol and other chemical substances. The first step is taking an effective alcohol and drug-use history. A medical interview paradigm is presented that may assist the family physician in preventing or identifying a substance abuse problem and intervening.

75 Gerstein, D. R., & Green, L. W. (Eds.). (1993). ***Preventing drug abuse: What do we know?*** Washington, DC: National Academy Press.

The National Institute on Drug Abuse sponsored a study and review of the literature by the National Research Council's Committee on Drug Abuse Prevention Research. The committee was charged to assess drug prevention strategies, to assess the theoretical basis and methodological adequacy of prevention evaluations, and to suggest minimum methodological standards for future evaluations.

The research reviewed led the committee to the conclusion that some prevention strategies have been evaluated sufficiently to justify the conclusion that they are not widely effective — particularly school programs not explicitly involving training of interpersonal behavior with peers. Furthermore, it is concluded, no drug abuse prevention activities have been adequately evaluated and found to be reliably effective. The single near-exception was behavioral school programs in grades 6 through 10 that focus on resistance skill training, as part of a broader curriculum stressing self-efficacy, interpersonal skills, and concrete knowledge of health effects of drug use, with booster sessions in a subsequent school year, and accompanied by community-wide public health efforts. A notable number of trials have found such programs to be effective in delaying cigarette-smoking onset for a considerable fraction of those students who would have otherwise initiated smoking. Even for these programs, rigorously controlled studies have found that follow-ups after five or more years do not consistently show lower smoking rates, and that those

students who were already smoking before receiving the curriculum were less likely to stop smoking than were controls.

Several skills-training school programs of unknown effectiveness are so widely used that the committee called for rigorous evaluation by independent researchers or the cessation of these curricula (Project DARE and Here's Looking At You are named as examples).

The committee identified seven elements that must be described and quantitatively assessed as minimal requirements for prevention evaluations: (a) the components of the intervention strategy; (b) optimal and achieved levels of implementation of each component, from the perspective of both source and recipient; (c) prescribed and actual qualifications and training of implementors; (d) levels and type of community and organizational support and opposition; (e) the character and extent of concurrent prevention activities in the research population affecting control and treatment subjects; (f) the specific cognitive, affective, and behavioral measures; (g) the characteristics of treatment and control populations in the study. The committee also suggests that reporting of the unit costs of program implementation would be a valuable addition to evaluation studies.

In an appendix on community strategies of health promotion and disease prevention, the committee argues that drug prevention researchers would do well to link their program innovations and trials with more comprehensive curricula and school-community joint efforts. Programs related to smoking prevention, early pregnancy prevention, and dropout prevention share both methods and goals. Moreover, school administrators should be more favorably disposed toward a curriculum that addresses multiple problems, than putting together programs from separate elements. Drug prevention efforts can benefit from the greater volume and quality of prevention research available in fields besides drug abuse. It is concluded that it is critical to understand how the communities relevant to drug prevention are constituted: what normative symbols, practices, events, and institutions define those communities, and how do drug-related behaviors relate? It is suggested that NIDA should launch a strategic community research initiative to investigate these questions and develop sustained prevention efforts in various communities to learn what best serves those communities' needs.

76 Gfroerer, J., & De La Rosa, M. (1993). **Protective and risk factors associated with drug use among Hispanic youth.** *Journal of Addictive Diseases, 12*(2), 87-107.

Analysis of data from a nationally representative sample of Hispanic youths age 12-17 and their parents (taken from the 1988 NHS) was done to investigate the impact of a number of variables on youths' lifetime smoking, frequency of drinking, and lifetime use and frequency of use of illicit drugs. The significance of youth, household, and parental characteristics were tested using measures of youth drug use as dependent variables in regression models. Parents' attitudes and use of licit and illicit drugs were found to play an important role in their children's drug use behavior. The results also provide some support for the hypothesis that Hispanic children whose parents are more acculturated into American society are at higher risk of using drugs. Youths of Mexican origin, youths living outside large metropolitan areas, and females were found to be more likely to use drugs. The results provide supportive evidence that for drug prevention education programs to be effective with Hispanic youths, they must be family oriented.

77 Goldberg, C. J., & Botvin, G. J. (1993). **Assertiveness in Hispanic adolescents: Relationship to alcohol use and abuse.** *Psychological Reports, 73*, 227-238.

An investigation was carried out on the relation of assertiveness to use of alcohol among 3,129 Hispanic junior high school students. Data were taken from questionnaires administered to a larger sample in 47 public and parochial schools in New York City. An 18-item modified version of the Gambrill-Richey Assertiveness Inventory was used to assess assertiveness. Factor analysis of the inventory identified five assertiveness factors of substance awareness, mastery of cognitive skills, individual rights, dating, and social skills. Significant gender differences were observed. Multiple regression analysis showed that substance awareness was negatively associated with alcohol use while dating, social skills, and individual rights factors were positively associated with alcohol use. Acculturation with peers was also a significant preditor of alcohol use or abuse. The findings provide a basis for design of alcohol prevention programs that focus specifically on Hispanic youth.

78 Grube, J. W. (1993). **Alcohol portrayals and alcohol advertising on television.** *Alcohol, Health & Research World, 17*(1), 61-66.

Alcohol portrayals on television and alcohol advertising often show drinking as glamorous and without any serious consequences. Although television portrayals have not been shown to have a great effect on young people's drinking habits and attitudes, alcohol advertising seems to increase youth's positive drinking attitudes and likelihood to drink.

79 Grube, J. W., & Wallack, L. (1994). **Television beer advertising and drinking knowledge, beliefs, and intentions among schoolchildren.** *American Journal of Public Health, 84*(2), 254-259.

The relationships between television beer advertising and drinking knowledge, beliefs, and intentions were investigated in a survey of schoolchildren. The research was guided by a theoretical model specifying that awareness of advertising, and not mere exposure, is necessary for it to have an effect on beliefs or behaviors. Participants were a random sample of 468 5th- and 6th-grade students in a Northern California community. Data were collected in the home with a combination of self-administered questionnaires and structured interviews. Nonrecursive statistical modeling indicated that awareness of television beer advertising was related to more favorable beliefs about drinking, to greater knowledge of beer brands and slogans, and to increased intentions to drink as an adult. The effects of advertising awareness of knowledge, beliefs, and intentions were maintained when the reciprocal effects of beliefs, knowledge, and intentions on awareness were controlled. The findings suggest that alcohol advertising may predispose young people to drinking. As a result, efforts to prevent drinking and drinking problems among young people should give attention to countering the potential effects of alcohol advertising.

80 Grunbaum, J. A., & Basen, E. K. (1993). **Comparison between health risk behaviors between students in a regular high school and students in an alternative high school.** *Journal of School Health, 63*(10), 421-425.

This pilot study determined age of initiation and prevalence of health-risk behavior in students attending an alternative high school (AHS) developed as a dropout prevention program. A concurrent study in a regular high school (RHS) in the same school district, to assess the affect of absentee students on the prevalence of health-risk behavior as ascertained by an in-class administration of the Youth Behavior Risk Survey (YRBS), allowed comparisons of the extent to which prevalence of health-risk behaviors between AHS students differed from RHS students. Results indicate that a larger percentage of AHS students, especially males, reported being involved in a physical fight in the past year, having smoked at least one cigarette in the past month, having drunk at least one drink on five or more occasions the past month, having drunk five or more drinks at least once during the past month, having smoked marijuana at least once in the past month, having used cocaine at least once in the past month, and having ever had sexual intercourse. A larger percentage of AHS students initiated risk behaviors at younger ages than RHS students. It is concluded that there is a need for comprehensive education/prevention programs to address the needs of youth in alternative school settings.

81 Gustafson, D. H., Bosworth, K., Treece, C., Wu, Y., Palmer, C. G. S., Moberg, D. P., & Hawkins, R. P. (1994). **Predicting adolescent problem use of marijuana: Development and testing of a Bayesian model.** *International Journal of the Addictions, 29*(7), 861-886.

This paper reports on the development and testing of a risk assessment index for problem marijuana use designed to guide teenagers through an extensive computer-based support system intended to help them improve marijuana-related behaviors. Bayesian decision theory, used as the basis of the index development process, offers the advantage of building the index on subjective judgments of experts and does not require a large empirical database. A validation survey on a sample of 10th graders ($N = 130$) elicited retrospective data on their habits in grade 7 and their habits in grade 10. The index was found to predict an independent panel's ratings of teenager risk, and predict the marijuana use of 10th graders using the retrospective self-reports. Implications for future risk assessment developments are discussed.

82 Guy, S. M., Smith, G. M., & Bentler, P. M. (1993). **Adolescent socialization and use of licit and illicit substances: Impact on adult health.** *Psychology and Health, 8*(6), 463-487.

A longitudinal study examined the impact of substance abuse during adolescence on health status in early adulthood. The subjects ($N = 825$), mostly White, middle class, and suburban, were first assessed in 1969-1973, when they were in junior high school or high school. A second assessment was made in 1981. Latent variable modeling revealed a small but significant effect from tobacco, alcohol, stimulants, sedatives, and hard drugs on adult health problems and on accidents related to use of these substances. Adolescent use of tobacco and marijuana was found to be a predictor of respiratory problems in young adulthood, whereas use of alcohol and drugs such as stimulants, sedatives, heroin, and LSD during adolescence led to problems with the same substances later on. Decreased physical hardiness during young adulthood was also predicted by cigarette smoking during adolescence, but this was not the case with adolescent marijuana use. Medically serious automobile and other accidents after high school were predicted by lower adolescent socialization, as were increased psychosomatic symptoms, seizure symptoms, and general psychiatric distress.

83 Hall, J. A., Henggeler, S. W., Felice, M. E., Reynoso, T., Williams, N. M., & Sheets, R. (1993). **Adolescent substance use during pregnancy.** *Journal of Pediatric Psychology, 18*(2), 265-71.

Substance use during pregnancy may be a key mediator of the association between adolescent childbearing and poor newborn outcome. Substance use during pregnancy was evaluated for 50 teens who were consecutive patients at an inner-city university clinic. Although teens reported typical lifetime rates of substance use, self-reports and two urine assays indicated minimal substance use throughout pregnancy. Findings suggest that the adolescents exercised judicious decision-making in light of the known health risks of substance use during pregnancy.

84 Hansen, W. B. (1993). **School-based alcohol prevention programs.** *Alcohol, Health & Research World, 17*(1), 54-60.

Alcohol prevention research is beginning to shed light on what types of school-based alcohol education programs work best to deter adolescent drinking. Strategies aimed at changing normative beliefs about alcohol consumption seem to be most promising.

85 Hardert, R. A., & Dowd, T. J. (1994). **Alcohol and marijuana use among high school and college students in Phoenix, Arizona: A test of Kandel's socialization theory.** *International Journal of the Addictions, 29*(7), 887-912.

Much of the existing research in the area of adolescent drug use is either atheoretical or poorly developed. While there is no widely accepted theory to account for an individual's decision to become involved in drugs, a number of relevant, theoretical frameworks have been developed. These include Kandel's socialization framework, based on her earlier work in selective influences of family and peers. The present research evaluates Kandel's socialization framework, and the findings tend to confirm many of her basic assumptions: that adolescent drug use is a complex phenomenon, involving intricate and shifting interactions among family, peer, and societal/institutional influences. Data was taken from a convenience sample of 1,234 high school and college students from the White, middle-class suburbs of Phoenix. Kandel's intrapersonal and interpersonal variables were found to bear surprisingly strong relations to both alcohol and marijuana use.perspective.

86 Hawkins, J. D., & Fitzgibbon, J. J. (1993). **Risk factors and risk behaviors in prevention of adolescent substance abuse.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 249-262.

Recent research developments provide a firm foundation for physician action to prevent substance abuse among patients before the appearance of a diagnosable disorder. This risk-focused prevention strategy can be applied to the prevention of adolescent substance abuse. Over the past 30 years, prospective studies have identified risk factors for substance abuse in adolescence and early adulthood. By identifying and addressing these risk factors in their youthful patients, primary care physicians can lower the odds that patients will develop substance abuse disorders.

87 Hawks, R. D., Bahr, S. J., & Wang, G. (1994). **Adolescent substance use and codependence.** *Journal of Studies on Alcohol, 55*, 261-268.

This research evaluated the extent to which parental codependence was associated with adolescent substance use and other adolescent problem behaviors. The sample was comprised of 293 adolescents classified as "drug-free," "experimenting," "emotional problem," "delinquent," or "drug dependent," and their parents, who were interviewed by trained intake workers. Using LISREL modeling, we found that the number of adolescent problem behaviors was associated with parental persecuting, suffering, and rescuing behaviors. Net of problem behaviors, adolescent substance use was associated with parental suffering but not with parental persecution or rescuing. As expected, there was a strong association between adolescent problem behaviors and substance use. The associations of substance use and problem behaviors with codependence were not moderated by religious preference or by being a member of a religion that teaches abstinence.

88 Hicks, R. D., Batzer, G. B., Batzer, W. B., & Imai, W. K. (1993). **Psychiatric, developmental, and adolescent medicine issues in adolescent substance use and abuse.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 453-468.

The psychiatric issues of adolescent substance abuse have been the subject of many studies over the past 30 years, but further studies focused on the specific role of substance abuse in adolescent cognitive and psychosocial development are necessary. In addition, longitudinal studies are still required to clarify the incidence of comorbidity. These studies must classify patients by stage of adolescent development and assess the influence of biologic factors and family dysfunction on initiation and progression of substance abuse disorders. Innovative institutional and community-based outpatient programs that teach general cognitive competence, basic academic skills, value clarification, and job-related skills should be supported so that all types of intervention may be evaluated.

89 Hoffmann, J. P. (1993). **Exploring the direct and indirect family effects on adolescent drug use.** *Journal of Drug Issues, 23*(3), 535-557.

Family processes and their influences on adolescent drug use are explored with data derived from the National Youth Survey, a longitudinal study of drug use and delinquency among multiple cohorts of adolescents in the U.S. Analyses were performed on data from 1977, 1978, and 1979. Several empirical models were developed and evaluated to examine the direct and indirect effects of family structure and family relations on marijuana and polydrug use. Results suggest that peers have the strongest effect on adolescent drug use, yet parent-child involvement and family structure also have a direct effect. The indirect models indicate that family factors influence peers, and family structure affects family relations.

90 Hoffmann, J. P. (1994). **Investigating the age effects of family structure on adolescent marijuana use.** *Journal of Youth and Adolescence, 23*(2), 215-235.

This study examines differences among older and younger adolescents in the influence of family structure, family relations, and peer relations on marijuana use. Data from a longitudinal sample of adolescents (the National Youth Survey) from the United States were stratified by age and used to assess these potential differences. Data analyzed were collected in the three years 1977-79. Precise measures of family structure were constructed to account for the various manifestations of family forms. Multivariate analyses indicate that a recent divorce attenuates attachment among younger adolescents and leads to less family involvement among older adolescents. Moreover, older adolescents from stepparent families are less attached to their families. Changes in these family relationship variables influence associations with drug-using peers, but these processes differ for the two age groups. Finally, less family involvement and greater drug-using peer associations lead to greater marijuana use among younger adolescents, while only peer associations directly affect use among older adolescents.

91 Hoffmann, N. G., Mee-Lee, D., & Arrowood, A. A. (1993). **Treatment issues in adolescent substance use and addictions: Options, outcome, effectiveness, reimbursement, and admission criteria.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 371-390.

Alcohol and other drug addictions pose a serious threat to our youth. In an era of cost containment, America can ill afford to sacrifice a substantial proportion of its youth for the sake of a false economic argument. Without adequate treatment services to address the multiple problems of these youth, society will continue to pay the price for decades to come. Treatment outcomes must be considered in the context of benefits and not just costs. Effective treatment shows the promise of repaying society many times the cost of the treatment through a variety of savings in improved educational functioning, decreased demands on social services, and reductions in criminal behaviors. When considered over the life of a young individual, recovery is a benefit that keeps on giving in human as well as financial value. However, society cannot afford a blank check approach to dedicate unlimited resources to adolescent addictions. Current and future work will be needed to address the issue of how essential services can be delivered in the most cost-effective way while still yielding acceptable results.

92 Holtzman, D., Lowry, R., Kann, L., Collins, J. L., & Kolbe, L. J. (1994). **Changes in HIV-related information sources, instruction, knowledge, and behaviors among US high school students, 1989 and 1990.** *American Journal of Public Health, 84*(3), 388-93.

Few data have been available among adolescents to determine behavioral changes that may prevent human immunodeficiency virus (HIV) infection. This analysis examines changes in the prevalence of self-reported HIV-related information sources, instruction, knowledge, and behaviors among high school students in the United States. Two independent, multistage national probability samples of students in grades 9 through 12 were surveyed in 1989 (n = 8,098) and 1990 (n = 11,631) with self-administered, anonymous questionnaires that included similar items. Compared with students surveyed in 1989, a significantly greater proportion of students surveyed in 1990 had received HIV instruction in school. Significant decreases were found in the proportion of White and female students who reported having had sexual intercourse, in the proportion of White students reporting two or more lifetime sex partners, and in the proportion of 15- and 16-year-olds, White students, and female students who reported having had four or more lifetime sex partners. For both years, students who had a greater level of HIV knowledge were less likely to have had multiple lifetime sex partners or to have injected illicit drugs. The findings suggest that school-based HIV education and knowledge may be contributing factors in reducing certain risk behaviors that can lead to HIV transmission among secondary school youth.

93 Hopp, R. J., Burklund, K., & Horton, M. (1993). **Current tobacco use policies in Nebraska public schools.** *Nebraska Medical Journal, 78*(7), 179-81.

A critical effort to reduce the harmful effects of tobacco is to promote tobacco abstinence among the nation's adolescent population. In this regard, the message of tobacco tolerance within the education system of the State of Nebraska was examined. Although the majority of schools surveyed have an encouraging policy regarding student smoking, it has not yet been universally implemented. In addition, the tobacco-use policies for nonstudents within public school buildings is of concern. The Nebraska Indoor Clean Air Act and the recent Environmental Protection Agency warning on secondhand smoke provides a framework for change. Health care providers can be proactive in encouraging their school districts to promote the goal of a Tobacco-Free Nebraska.

94 Huizinga, D., Loeber, R., & Thornberry, T. P. (1993). **Longitudinal study of delinquency, drug use, sexual activity, and pregnancy among children and youth in three cities.** *Public Health Reports, 108*(1 supplement),

Using data from a collaborative program of research, this paper examines the prevalence of delinquency, alcohol and drug use, sexual intercourse, and pregnancy among youth in three urban settings. The findings indicate that a substantial portion of adolescents are involved in these behaviors. There are indications that for many youth the initiation of delinquency and drug use is occurring before the teenage years. There are also indications that all of these behaviors are often co-occurring, suggesting that comprehensive intervention programs may be required.

Importantly, the high rate of sexual activity and pregnancy, combined with alcohol and drug use, suggests that greater attention to this combination of behaviors is needed.

95 Humphreys, K., & Rappaport, J. (1993). **From the community mental health movement to the war on drugs: A study in the definition of social problems.** *American Psychologist, 48*(8), 892-901.

In the 1980s, the Reagan and Bush administrations reduced funding for community mental health programs and began instead to support substance abuse treatment agencies. One reason for this shift in policy was that the social problem of mental health illness had been captured by progressives in the community mental health movement. Conservatives, therefore, needed a new problem to redefine and use to enact new social control policies. The conservatives' claim that substance abuse is primarily the result of a defect in the character or constitution of the abuser has had profound effects on both social policy and the research community. Greater awareness is needed on the part of researchers as to how social problems have been defined and how government research grants affect our thinking about susbstance abuse.

96 Hussey, D. L., & Singer, M. (1993). **Psychological distress, problem behaviors, and family functioning of sexually abused adolescent inpatients.** *Journal of the American Academy of Child and Adolescent Psychiatry, 32*(5), 954-61.

By studying children and adolescents who have been sexually abused, improvements in identifying and treating emerging pathology can be gleaned before personality structures become more rigidly defined and less amenable to therapeutic interventions. It is through studying and comparing subgroups of victims and controls that clinical researchers can additionally elucidate abuse-related manifestations that contribute to the development of psychopathology. A group of sexually-abused adolescent psychiatric inpatients was compared with a control group of inpatient counterparts on measures of social competence, self-esteem, depression, substance abuse, and perceptions of family characteristics and functioning. Consecutive admissions to an adolescent inpatient psychiatric unit ($N = 423$) were carefully screened for a history of sexual abuse, then divided into two groups, each with 87 subjects, after matching on key variables including age, race, gender, socioeconomic status, and psychiatric diagnosis. Sexually-abused and control-group inpatient adolescents were similar on standardized measures of psychological distress and family functioning. The most statistically significant differences were found between groups on substance abuse measures: on almost every measure of substance abuse, the sexually-abused group had scores indicating greater substance abuse involvement than did the control group. The group of sexually-abused adolescents had higher scores on measures for self-medication, rebellious motivation, and perceived benefits of substance use, as well as frequency of use, early initiation, and intoxication. While these findings appear dramatic, other influences, such as family history of substance abuse cannot be ruled out.

97 Jemmott, J. B., & Jemmott, L. S. (1993). **Alcohol and drug use during sexual activity: Predicting the HIV-risk-related behaviors of inner-city Black male adolescents.** *Journal of Adolescent Research, 8*(1), 41-57.

The relation of alcohol and drug use during sexual activity to increased HIV risk-associated behavior was examined among 108 inner-city Black male adolescents (mean age 14.6 yrs) who completed 2 questionnaires, including the Marlowe-Crowne Social Desirability Scale. Subjects who reported a greater number of days in which they had sex while "high" reported more unprotected coitus, a greater number of coital partners, a greater number of risky coital partners, and more frequent insertive anal intercourse than did those who reported fewer days on which they had sex while high. Results support the view that alcohol and drug use during sexual activity may affect the nature of the sexual behavior in which Black male adolescents engage, although it may not affect whether they use condoms.

98 Johnson, G. K., & Squier, C. A. (1993). **Smokeless tobacco use by youth: A health concern.** *Pediatric Dentistry, 15*(3), 169-74.

Smokeless tobacco use in the United States has increased over the last two decades largely due to increased consumption by young people. Rates of use are highest among teenage and young adult males, and the most popular form of smokeless tobacco is moist snuff. Peer pressure as well as use of other addictive substances such as cigarettes, drugs, and alcohol, seem to correlate with current use. Frequent users of smokeless tobacco have an

increased risk of developing gingival recession, leukoplakia, and oral cancer at the placement site. Other health concerns are related to the cardiovascular effects and addictive nature of nicotine. Because the smokeless tobacco habit is difficult to break, public health efforts have been largely aimed at prevention. The dental professional also can play an important role in recognizing the smokeless tobacco user and facilitating cessation.

99 Johnston, L. D., Bachman, J., & O'Malley, P.(1994, January 31). **Monitoring the future 1993. Press Release**. University of Michigan, Ann Arbor).

Drug use appears to have risen among American teenagers, as fewer see dangers and as peer norms began to change. Cigarette smoking among teens also seems to have increased.

100 Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1993). ***National survey results on drug use from the Monitoring the Future Study, 1975-1992: Volume 1, Secondary school students.*** (NIH publication no. 93-3597). Washington, DC: U.S. Government Printing Office.

To summarize the findings on trends, over the last decade or so there have been appreciable declines in the use of a number of the illicit drugs among high school seniors, and even larger declines in their use among American college students and young adults more generally. However, as previously suggested, the stall in these favorable trends in all three populations in 1985, as well as an increase in active cocaine use that year, should have served as a reminder that these improvements are not inevitable and cannot be taken for granted. While the general decline resumed in 1986 and, most importantly, was joined by the start of a decline in cocaine use in 1987 and crack use in 1988, in 1992 a number of alarm bells were sounding. Although the seniors continued to show improvement on a number of measures in 1992, the college students and young adults did not. Perhaps of greater importance, the 8th graders exhibited a significant increase in marijuana, cocaine, LSD, and hallucinogens other than LSD, as well as a not-quite significant increase in inhalant use. (In fact, all five populations showed some increase in LSD use, continuing a longer-term trend for college students and young adults.)

As this study has demonstrated over the years, changes in perceived risk and disapproval have been important causes of the downturns that have occurred in the use of a number of drugs. These beliefs and attitudes surely are in turn influenced by the amount and nature of the public attention being paid to the drug issue. The fact that this attention has declined so substantially in the past couple of years may help to explain why there seems to be little further change in perceived risk and disapproval among the seniors, and some clear backsliding among the eighth graders. (There was even some backsliding among the seniors.).

101 Kann, L., Warren, W., Collins, J. L., Ross, J., Collins, B., & Kolbe, L. J. (1993). **Results from the national school-based 1991 Youth Risk Behavior Survey and progress toward achieving related health objectives for the nation.** *Public Health Reports, 108*(1 supplement), 47-55.

The 1991 Youth Risk Behavior Survey (YRBS) used a three-stage cluster sample to draw a national school-based sample including students in grades 9 through 12 in public and private schools in the fifty states and the District of Columbia. The YRBS questionnaire was developed by the Centers for Disease Control and Prevention, and covers health-risk behaviors, injury, tobacco use, AOD use, sexual behavior, diet, and physical activity. Of the schools selected for the survey sample, 75% agreed to participate, and of the eligible students at those schools, 90% returned usable questionnaires. The sample was 70% White, 14% Black, and 9% Hispanic.

While 70% reported having ever tried cigarettes, 28% had smoked during the previous 30 days (current smoking). Only 13% had smoked one cigarette or more on 20 of the previous 30 days (frequent smoking), and 21% had ever smoked a cigarette a day for a month (regular smoking). Whites and Hispanics had significantly higher prevalence rates for regular, current, and frequent smoking than did Blacks. Greater proportions of Whites reported regular and frequent smoking than did Hispanics. Among those who had smoked a whole cigarette, the average age of first use was 12.6 years. In the month prior to surveying, 11% of the total sample had used smokeless tobacco. Males had a significantly higher prevalence rate of smokeless tobacco use than did females, and Whites were significantly higher than Hispanics, who were significantly higher than Blacks. No significant differences in monthly smokeless tobacco use were found by grade. Lifetime alcohol use was reported by 82% of the total sample, and 51% in the previous 30 days. Whites reported significantly more alcohol use in the previous 30 days than Blacks did. Among those who had used alcohol, average age of initiation was 12.5 years. In the same period, 31%

had consumed five or more drinks on a single occasion (heavy drinking). Heavy drinking episodes were significantly more common among males than females, and among Whites than Hispanics or Blacks. It was also positively related to school grade. Lifetime marijuana use was 31%, and monthly 15%. Lifetime cocaine use was 6%, and monthly 2%. Marijuana use did not vary by race, but did increase with grade. Steroids had been used by 3% of the total sample, significantly more by males than females. Steroid use did not vary by grade or race.

102 Katims, D. S., & Zapata, J. T. (1993). **Gender differences in substance use among Mexican American school-age children.** *Journal of School Health, 63*(9), 397-401.

This study identified differences in gender between and among 4th-, 5th-, and 6th-grade Mexican American students for use of four specific "minor" substances: cigarettes, beer, wine/liquor, and marijuana. Minor substances are believed to serve as a "gateway" to more intense and frequent use of minor and major substances. Students (N = 2,216; males 52% and females 48%) were surveyed to ascertain information pertaining to their substance use. The chi-square statistic found significant gender differences at the 4th and 5th grade for use of minor substances. Patterns of initiation of minor substance use by gender and grade are discussed in the context of substance-use stage theory. Overall, results support the need for further research emphasizing within-group variations in the substance use of singular ethnic groups.

103 Keefe, K. (1994). **Perceptions of normative social pressure and attitudes toward alcohol use: Changes during adolescence.** *Journal of Studies on Alcohol, 55*, 46-54.

The present study examined age differences in perceived normative social pressure and attitudes as well as the importance of these variables for adolescent alcohol use. Students in grades 7, 9, and 11 (N = 386) completed a questionnaire. A majority of adolescents reported that friends pressured them not to use alcohol. Those in grades 9 and 11, however, perceived their friends as pressuring less against their alcohol use than did 7th graders. While parental influence decreased with age, peer influence did not show a consistent age difference across two drinking measures. As expected, the importance of perceived benefits increased with age, while that of perceived costs of alcohol use decreased with age. The findings suggest that the perceived normative pressure varies with the age and the behavior of the adolescent.

104 Kennedy, B. P., & Minami, M. (1993). **The Beech Hill Hospital/Outward Bound Adolescent Chemical Dependency Treatment Program.** *Journal of Substance Abuse Treatment, 10*(4), 395-406.

Ninety-one adolescents (74 males and 17 females, ages 14-20) who were admitted to an inpatient treatment facility because of substance-use disorders were followed over a one-year posttreatment period. Follow-up phone interviews were conducted with each patient and a parent at 3-month intervals. Minnesota Multiphasic Personality Inventory (MMPI) and Personal Experience Inventory (PEI) data were collected along with detailed psychosocial assessments to determine what factors predicted successful treatment outcomes. One year posttreatment, 47% reported complete abstinence from alcohol and other drugs. Survival analyses indicated that participation in a self-help program such as Alcoholics Anonymous (AA) and severity of drug use and psychopathology were associated with relapse risk. Patients with severe psychopathology and drug use scores who were not attending AA were 4.5 times more likely to relapse than patients with low scores who attended AA.

105 King, J., & Thayer, J. F. (1993). **Examining conceptual models for understanding drug use behavior among American Indian youth.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 129-143). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

Multifaceted models of this kind hold the most promise for examining the area of substance abuse. The life stress model proposes that the primary predictive factors for substance abuse are life stressors and degree of social support. In this particular framework, alcohol and other drug use is viewed as a coping strategy that reduces the impact of life

stress. Social support serves as a mediating variable between life stress and substance use; that is, the greater the social support, the less likely it is that one needs to use alcohol or other drugs. The peer cluster theory hypothesizes that the strongest predictive factor for substance use is peer influence. The group with which the individual most closely associates determines where, when, and how alcohol and other drugs are used. This cluster group also determines the attitudes and beliefs about alcohol and other drugs. The peer cluster theory does not ignore other psychosocial factors; rather, they are seen as background variables that influence the adolescent's choice of peer group. These factors include social structure (e.g., family support), socialization processes (e.g., religious identification, school success), attitudes and beliefs, and psychological factors (e.g., self-confidence, alienation). This study utilizes structural equation modeling to test the relative value of these two theories. Data were collected as part of a longitudinal biannual survey of American Indian high school students. This survey was conducted by the National Center for American Indian and Alaska Native Mental Health Research (NCAIANMHR). The survey began at the request of the tribal administration because it wanted to better understand how these students were doing academically, socially, and psychologically and to what extent alcohol and other drugs were being used.

Subjects were recruited from among the students at a tribally administered boarding school in the Western United States, 75% of whom reside in the campus dormitories throughout the school year. Most of the students belong to five local tribes and come from nearby areas within the state. The sample size was 177 students for the life stress analysis and 169 students for the peer cluster analysis. Variation in sample size was due to the number of completed measures within each analysis. The participant age range was from 12 to 19 years, with an average age of 16. Gender participation was approximately equal. Both theoretical models appeared to fit the data equally well, suggesting that the constructs employed by both models are identifying important factors involved in rates of alcohol and other drug use. Future analyses may involve examining relationships among factors in both models and incorporating the most significant factors into a more comprehensive model. For example, determining the effects of life stress on family strength factors may reveal important information on where or how family strength originates and maintains itself. Although statistically significant, each of these models accounts for only a small portion of the total variance. It is important that patterns for alcohol and other substance use are identified empirically, but it is equally important to acknowledge that there are many other contributing factors for alcohol and other drug use that are not accounted for with current methods. Longitudinal studies as well as structural modeling techniques employed in substance abuse research hold promise for increasing understanding in this critical area.

106 Klitzner, M., Stewart, K., & Fisher, D. (1993). **Reducing underage drinking and its consequences.** *Alcohol, Health, & Research World, 17*(1), 12-18.

Although the minimum legal drinking age in the United States is 21, the vast majority of American youths have experimented with alcohol. Evidence shows that underage drinking can have serious public health and safety consequences. To develop and ensure enforcement of the most effective prevention strategies to reduce underage drinking, existing and alternative programs merit further research attention.

107 Koopman, C., Rosario, M., & Rotheram-Borus, M. J. (1994). **Alcohol and drug use and sexual behaviors placing runaways at risk for HIV infection.** *Addictive Behaviors, 19*(1), 95-103.

Lifetime and current alcohol and drug use and sexual risk acts were examined among 154 male and 148 female runaways, aged 11-19, predominantly Black and Hispanic, residing at four residential shelters in the New York City area. Most runaways reported alcohol (71%) and drug use (46%), with about a quarter (27%) using either alcohol or drugs at least once a week during the past 3 months. Physical symptoms of substance abuse were reported by 47%; 17% reported addiction. Current substance use was higher among males and Hispanics, and increased with age. Substance use was significantly related to reporting more sexual partners and less frequent condom use. The results suggest that HIV/AIDS prevention programs must target the reduction of alcohol and drug use as well as sexual risk acts.

108 Krohn, M. D., & Thornberry, T. P. (1993). **Network theory: A model for understanding drug abuse among African-American and Hispanic youth.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 102-128). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

The present study provides descriptive information on network characteristics of alcohol and marijuana users and compares these with the characteristics of nonuser networks to better inform the etiology of drug use and the development of intervention programs. The sample consisted of 987 students in the 7th and 8th grades at Rochester city public schools during the 1987-88 academic year. To ensure that serious, chronic offenders were included in the study, the sample overrepresented high-risk youth in the following manner. Males were oversampled (75% vs. 25%) because they were more likely to be chronic offenders and to engage in serious delinquent behavior than were females. In addition, students were selected proportionately to the resident arrest rates of the census tracts in which they lived at the time the sample was drawn. Thus, students from the areas of the city with the highest rates of arrest were proportionately overrepresented, and students from the lowest arrest rate areas were proportionately underrepresented. The current analysis was based on the 885 adolescents for whom Wave 2 through Wave 4 interviews were completed. This represented 90% of the initial sample. Characteristics of respondents for Waves 2 through 4 were comparable, with only slight differences in terms of age, sex, ethnicity, and resident arrest rates of census tracts. The resulting sample at Wave 2 was 68.5% Black, 16.4% Hispanic, and 15.1% White. Students ranged in age from 12 to 15 years at Wave 2, although more than 70% were 14 and 15. These proportions were close to what was expected given the population characteristics of the Rochester schools and the decision to oversample high-risk youth. Interviews with students were conducted by the RYDS staff in private rooms provided by the school. If the student could not be contacted in school, he or she was interviewed at home. Interviews were about an hour in length.

The results suggested that the social network characteristics of users and nonusers differed somewhat by racial and ethnic group. Overall, the social networks of White users and nonusers were less distinct than those of Blacks or Hispanics. There were no significant differences between White users and nonusers in the sociodemographic characteristics of friends, the intimacy of social networks, or the joint participation with friends or parents in conventional activities. The friendship networks of White marijuana users were more dense than those of White nonusers. Black and Hispanic alcohol and marijuana users were less likely to be homophilic in terms of sex, school, and grade, but they were more likely to have friends from the same neighborhood. Users from these two groups had more intimate friendship networks than did nonusers. Hispanic alcohol users were less likely to have dense social networks and to participate with their parents in joint activities than were nonusers. For Blacks, there were no significant differences in density or overall participation with parents in joint activities between users and nonusers of either substance.

109 Kumpfer, K. L., Shur, G. H., Ross, J. G., Bunnell, K. K., Librett, J. J., & Millward, A. R. (1993). ***Measurements in prevention: A manual on selecting and using instruments to evaluate prevention programs.*** (CSAP Technical Report 8). (DHHS Publication No. SMA 93-2041). Washington, DC: U.S. Government Printing Office.

The development of the High-Risk Youth Demonstration program in the Division of Demonstrations for High-Risk Populations (DDHRP) has been accompanied by an increasing emphasis on evaluation. This emphasis led to a growing number of requests to DDHRP for guidance in selecting cultural, ethnic, gender-sensitive, and linguistically appropriate instruments to measure the results of prevention strategies directed at youth, families of these youth, peer groups, schools, and/or the environment (community/neighborhood/society). The search for instrumentation to fulfill evaluation requirments has been the impetus for producing this manual. The manual is devoted to outcome evaluation and includes a compendium of standardized outcome instruments for assessing the effectiveness of substance abuse prevention strategies directed at a variety of different risk factors. For each instrument, the manual provides the name of the instrument, its author, the age group for which the instrument is designed, the method of administration, the scales included in the instrument, its statistical properties (reliability and validity measures), language, cost, and source for obtaining copies. The value of a reference document containing this information extends to all prevention programs interested in evaluating their prevention strategies, not only those grantees funded by the Center for Substance Abuse Prevention.

110 Kumpfer, K. L., Turner, C., Hopkins, R., & Librett, J. (1993). **Leadership and team effectiveness in community coalitions for the prevention of alcohol and other drug abuse.** *Health Education Research: Theory & Practice, 8*(3), 359-374.

Comprehensive community coalitions or partnerships are increasingly being developed in this country to coordinate and expand alcohol and other drug (AOD) abuse prevention services. While case study evidence suggests that some coalitions are effective, there is very little theory development or empirical research on factors contributing to successful coalitions. This paper presents a theoretical model of coalition team effectiveness hypothesizing that an empowering style of leadership increases member satisfaction and perceptions of team efficacy, which ultimately increases team effectiveness. The theoretical model was pilot tested in an exploratory study using preliminary, small sample data ($N = 65$) from the first year evaluation of an AOD prevention coalition. The exploratory research strategy employed factor analysis and multiple regression analysis to test the relationship of coalition members' process data (i.e., team members' AOD knowledge and use and team effectiveness in developing fundable plans). The results supported the proposed model and suggest that further model testing employing larger samples, more diverse community teams, and more sophisticated data analyses (structural equation modeling or path analysis) could lead to information useful in training team leaders and developing more effective coalitions.

111 Laflin, M. T., Moore-Hirschl, S., Weis, D. L., & Hayes, B. E. (1994). **Use of the theory of reasoned action to predict drug and alcohol use.** *International Journal of the Addictions, 29*(7), 927-940.

The present study examines the role of self-esteem (SE) in the prediction of drug and alcohol use. Consistent with research on the theory of reasoned action, we suggest that alcohol and drug attitudes and subjective norms are more useful in the prediction of self-reported drug and alcohol consumption than SE. In the present study, measures of SE, drug attitudes, subjective norms, and drug use behaviors were collected from 2,074 Ohio high school and state university students. Results indicate that drug attitudes and subjective norms do predict drug and alcohol use, but that SE does not add significantly to the prediction of the drug and alcohol behaviors.

112 Lamarine, R. J. (1993). **A pilot study of sources of information and substance use patterns among selected American Indian high school seniors.** *Journal of American Indian Education, 32*(3), 30-39.

A survey of 168 American Indian (primarily Navajo) high school seniors in New Mexico examined experiences with alcohol, tobacco, and illegal drugs; sources of information about these substances; and student attitudes, perceptions of risk, perceptions of parent attitudes, and reasons for not using. Implications for drug education are discussed.

113 Lamarine, R. J. (1993). **School drug education programming: In search of a new direction.** *Journal of Drug Education, 23*(4), 325-31.

School drug abuse prevention programs represent an enormous educational resource. Recent perceptions of an epidemic of drug abuse among the nation's youth have fueled the escalation in expenditures for drug prevention programming. An important question that needs to be addressed concerns whether broad-ranging drug education efforts directed at all public and private school students are efficient and effective uses of available resources. After a brief survey of the evolution of drug education programming in the U.S., this article examines recent longitudinal research regarding the antecedents of drug abuse among young people. Based on this research, suggestions are made for a new approach to drug education programs that would direct intensive interventions at the minority of youth who are identifiable in early childhood as particularly susceptible to problems with drug abuse.

114 Land, G. H., & Stockbauer, J. W. (1993). **Smoking and pregnancy outcome: Trends among Black teenage mothers in Missouri.** *American Journal of Public Health, 83*(8), 1121-1124.

Changes in smoking among pregnant Black teenagers in Missouri are explored using data from Missouri birth certificates for the years 1978 through 1990. Data for 41,544 Black teenagers and 105,170 White teenagers were analyzed. The rate for Blacks who smoked during pregnancy decreased from 37% in 1978 to less than 22% in 1990. A large part of this reduction is attributed to Black teenage mothers, whose smoking during pregnancy declined from

35.8% to 7.2%. The Black teenage specific low-birthweight rate decreased by 13.6%, perhaps due in part to the decrease in smoking during pregnancy. Results indicate that a major norm has changed in smoking status among pregnant Black teenagers.

115 Landrine, H., Richardson, J. L., Klonoff, E. A., & Flay, B. (1994). **Cultural diversity in the predictors of adolescent cigarette smoking: The relative influence of peers.** *Journal of Behavioral Medicine, 17*(3), 331-346.

A culturally diverse sample of 4,375 9th-grade students at 35 public schools in Los Angeles and San Diego counties completed a self-report inventory assessing their current amount of smoking, and several psychosocial predictors of smoking (e.g., depression, anger, stress, smoking among peers, etc). Results revealed that Whites smoked more than Blacks, Asians, and less-acculturated Latinos but not more than highly-acculturated Latinos. Stepwise regression analyses of the predictors of smoking found significant ethnic and acculturation differences in the relative predictive power of 18 well-known risk factors. Smoking among peers was the best predictor of smoking for White adolescents (accounting for 23.5% of the variance) but accounted for only 15% of the variance for Latino youth, 9.6% of the variance for Asian youth, and none of the variance for Black youth. These differences would affect the efficacy of peer influence programs. Other components of prevention programming, it is suggested, are not culturally limited, and should be retained in any program: education about cigarette advertising and smoking-related disease, social skills and life skills training, and relaxation techniques.

116 Laws, K., & Turner, A. (1993, August). ***Alcohol and other drug use: The conncection to youth suicide: Abstacts of selected research.*** Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

Thirty-nine research articles were abstracted in order to give an overview of the link between AOD abuse and youth suicide and to provide a review of what some schools and communities are doing in regard to suicide prevention, intervention, and postvention. Key points include: (1) suicide is not limited to a small segment of adolescents; (2) youth who contemplate, attempt, and complete suicide share many of the same symptoms and risk-behaviors, including depression, low self-esteem, stress, interpersonal problems, and AOD abuse; (3) it is important to identify and treat conditions that predispose adolescents to suicidal behavior before they attempt or complete suicide; (4) AOD use is predominant among those who use firearms to complete suicide; (5) school policies ought to include plans for emergency crisis interventions and postcrisis treatment; (6) comprehensive mental health education programs should include not only school personnel but also representatives from various community agencies; (7) extensive evaluation is needed since there is no conclusive evidence as to the effectiveness of suicide prevention curricula or programs; and (8) primary prevention programs, such as substance-abuse prevention, also help reduce dropout rates, delinquency, violence, teen pregnancy, and teen suicide.

117 Leviton, S., Schindler, M. A., & Orleans, R. S. (1994). **African-American youth: drug trafficking and the justice system.** *Pediatrics, 93*(6), 1078-?

To examine the role of the legal system in adolescent drug trafficking, relevant literature and legislation are described and analyzed. Utilization of young adolescents by drug "kingpins" in drug trafficking is a new practice that is highly advantageous to the employer for several legal and economic reasons. From the perspective of the drug kingpins, juveniles are particularly useful in drug trafficking, because they work for lower wages. Further, even if the youth are arrested, the juvenile justice system enables their rapid return for continued service in the drug trade. From the perspective of the youth, drug trafficking offers one of the few economic opportunities available to them. Further, the numbers suggest a tremendous racial disparity in the juvenile justice system. The mutual advantages to both employer and employee of using youths in drug trafficking increases the likelihood that this new practice will continue to flourish and with increasingly younger children. Effective prevention and treatment interventions will need to be multifaceted, addressing the economic, educational, and social issues that have permitted the rapid emergence of adolescent drug trafficking. Finally, further investigation of the apparent racial disparities is necessary.

118 Levy, S. R., Lampman, C., Handler, A., Flay, B. R., & Weeks, K. (1993). **Young adolescent attitudes toward sex and substance use: Implications for AIDS prevention.** *AIDS Education and Prevention, 5*(4), 340-351.

This paper explores differences in adolescents' attitudes, beliefs, and resistance skills regarding sexual behaviors and use of substances in the context of AIDS prevention. A total of 553 7th- and 8th-grade students completed a self-administered questionnaire as baseline data collection for a human immunodeficiency virus (HIV) prevention project. Students' attitudes about sexual behavior and substance use differed markedly. Teens in this sample reported feeling significantly more comfortable discussing substance use with their parents than discussing sex; they also reported that it is easier to say "no" to alcohol or marijuana than to resist pressures to have sex. Furthermore, among students who had ever had sex and who had ever used alcohol, young adolescents indicated that their parents would be much less upset to find out they were having sex than to discover they were smoking, drinking alcohol, or using drugs. Implications of the findings for HIV/AIDS prevention efforts are discussed.

119 Li, X., & Feigelman, S. (1994). **Recent and intended drug trafficking among male and female urban African-American early adolescents.** *Pediatrics, 93*(6), 1044-1049.

To investigate associations between recent and intended involvement in drug trafficking and perceptions of the social environment among high-risk urban African-American youths, a multicomponent risk assessment survey was conducted among a convenience sample of 351 Black youths aged 9 through 15 years, from low-income communities. Both univariate analysis and logistic regression were performed to examine the association of youths' perceived social environment with recent and intended involvement in drug trafficking. Drug selling or delivering in the previous 6 months was reported by 6% of the youths; 12% expected to engage in these activities in the next 6 months. There was a strong association between drug trafficking and other high-risk behaviors, including drug use. Among both genders, perceptions that neighbors, friends, or family members were involved in drug trafficking were correlated with recent or intended drug trafficking. For boys, personal economic needs had a strong association with drug trafficking. For girls, personal feelings were more important correlates of intended involvement. Efforts aimed at both drug-trafficking prevention and intervention need to be community-based and multifaceted. Programs should address the youths' perceived social environments and consider gender differences regarding correlates of drug-trafficking involvement.

120 Linden, M. F. (1993). **Alcohol use and abuse in a rural school.** *Rural Educator, 14*(3), 1-3.

A survey in a rural Texas school district revealed that as many as 85% of the students in grades 6-12 drank alcohol. Students believed their drinking routines to be normal, whereas teachers and parents felt that prevalent alcohol use and abuse had definite negative effects.

121 Little, R., & Clontz, K. (1993). **Young, drunk, dangerous and driving: Underage drinking and driving research findings.** *Journal of Alcohol and Drug Education, 39*(2), 37-49.

Drug and alcohol abuse has been identified by a number of commentators as the number one problem facing the youth of America. Fatal vehicular accidents resulting from drunk driving is the number one cause of death among the 15- to 24-year-old age group. This report provides a summary of major, recent research findings concerning illegal alcohol use and intoxicated driving among American youth.

122 Loiselle, J. M., Baker, M. D., Templeton (Jr.), J. M., Schwartz, G., & Drott, H. (1993). **Substance abuse in adolescent trauma.** *Annals of the Emergency Medicine, 22*(10), 1530-1534.

To determine if there is a significant prevalence of drug or alcohol use among adolescents evaluated for significant acute trauma, a prospective, age-matched controlled study was carried out over a 20-month period in an urban pediatric emergency department (ED) in a Level I pediatric trauma center. The study included patients between 13 and 19 years of age requiring admission to the trauma service following evaluation in a pediatric ED and an age-matched

control group of asthmatic patients. A total of 134 patients (mean age, 14.8 years) were admitted for trauma-related injuries, and 22 of 65 (34%) tested positive for alcohol or drugs of abuse. The mean age of patients with a positive toxicology screen was 15.4 years. Most commonly detected drugs were alcohol ($n = 8$), benzodiazepines ($n = 8$), cocaine ($n = 5$), and cannabinoids ($n = 4$). The number of positive screens in the trauma group (22 of 65) was significantly higher than controls (1 of 49) ($p < .001$). This remained statistically significant even when those trauma patients not screened were assumed to have a negative toxicology screen (22 of 134 versus 1 of 49) ($p < .01$). There was also a significantly higher number of positive toxicology screens among adolescents with an intentional versus unintentional mechanism of injury (21 of 71 versus 1 of 63) ($p < .001$). A significant number of adolescents admitted to the hospital for trauma-related injuries have a toxicology screen positive for alcohol or drugs of abuse. A toxicology screen should be a standard laboratory test in adolescents involved in significant trauma, especially if the mechanism was intentional.

123 MacKenzie, R. G. (1993). **Influence of drug use on adolescent sexual activity.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 417-422.

Due to the nature of the biopsychosocial events accompanying adolescence, young people are at increased risk for engaging in problem behaviors that help them cope with the transition. Some individuals, because of life circumstance, personality, or social toxicities within their environment, are particularly affected by the transition of adolescence. The developmentally-based discomforts experienced during this period become the driving forces for behavioral and social interactions. Attempts at easing the transitions often include experimentation, exploration of new experiences, and exploitation of peers and adults. Drug use and sexual experiences commonly accompany the events. Either experience alone represents a risky event for the adolescent. Together they create a situation that can greatly escalate risk, modulate or negate disease prevention behaviors, and greatly compromise future well-being.

124 Madden, P. A., & Grube, J. W. (1994). **The frequency and nature of alcohol and tobacco advertising in televised sports, 1990 through 1992.** *American Journal of Public Health, 84*(2), 297-299.

This study examines the frequency and nature of alcohol and tobacco advertising in a random sample of 166 televised sports events representing 443.7 hours of network programming broadcast from fall 1990 through summer 1992. More commercials appear for alcohol products than for any other beverage. Beer commercials predominate and include images at odds with recommendations from former Surgeon General Koop. The audience is also exposed to alcohol and tobacco advertising through the appearances of stadium signs, other on-site promotions, and verbal or visual brief product sponsorships. Moderation messages and public service anouncements are rare.

125 Martin, C. S., Arria, A. M., Mezzich, A. C., & Bukstein, O. G. (1993). **Patterns of polydrug use in adolescent alcohol abusers.** *American Journal of Drug and Alcohol Abuse, 19*(4), 511-521.

It is clear that alcohol abuse by adolescents rarely exists today without the concurrent use of other drugs. Little is known, however, about the extent and patterns of polydrug use in clinical samples of adolescent alcohol abusers. The present study examined patterns and correlates of polydrug use in 72 adolescents admitted to an inpatient treatment unit with a diagnosis of alcohol abuse. The degree of lifetime involvement with 10 different drug classes was assessed in a clinical interview. Ninety-six percent of subjects reported use of drugs other than alcohol, and there were substantial rates of use for most drug classes. Males and females did not differ in the percentage of subjects who used different drug classes or in severity of involvement ratings for these drug classes. The data suggest a consistent ordering of drug classes, such that the use of drug classes late in this order was rare in the absence of the use of drug classes earlier in the order. The data suggest that polydrug use characterizes the large majority of adolescent alcohol abusers, and that such use is often quite extensive. Implications for assessment and treatment are discussed.

126 May, C. (1993). **Resistance to peer group pressure: An inadequate basis for alcohol education.** *Health Education Research, 8*(2), 159-165.

The notion of peer group pressure is explored as it has been deployed in educational interventions on alcohol for adolescents. It is argued that peer group pressure is an inadequate explanation for youthful alcohol use and that

interventions formulated around the inculcation of resistance to peer group norms must inevitably be at variance with the everyday experience of those at whom such interventions are aimed. Furthermore, a reformulation of the concept of peer group pressure opens up its positive features, and these offer a strong base for a new range of educational initiatives.

127 McDonald, R. M., & Towberman, D. B. (1993). **Psychosocial correlates of adolescent drug involvement.** *Adolescence, 28*(112), 925-936.

This study evaluates the ability of a four-factor psychosocial model to explain adolescent drug involvement. Subjects are a representative sample of 7th- and 8th-grade public school students. A cross-sectional sample of data was extacted from a multiyear longitudinal assessment of a statewide drug education program. Data were collected through administration of the Youth Life-Styles Inventory, a specially designed drug-involvement assessment instrument. The belief that substance use has both external (sociological) and internal (psychological) causes guided the selection of independent variables. Factor analysis was used to disclose the interrelated structures of the psychosocial variables. A four-factor model was produced offering a concise theoretical paradigm of the underlying psychosocial determinants of adolescent drug use. This model was regressed on two indexes of drug involvement. Findings should prove useful in policy formulation and design of adolescent drug education and treatment programs. The explanatory potency of the four-factor model should aid in the investigation of adolescent drug use. The results indicate the need for children to bond with peers, parents, and others who have drug-resistant attitudes, and with conventional institutions such as schools.

128 McDuffie (Jr.), T. E., & Bernt, F. M. (1993). **Contrasts between the perceptions of parents and their adolescent children regarding drug and alcohol use and prevention.** *Journal of Alcohol and Drug Education, 39*(1), 92-106.

While numerous studies have investigated differences between teen and adult perceptions and attitudes about the causes, frequency, and prevention of drug use, few if any have used biologically related individuals to constitute the groups being compared. The present study surveyed 212 parent-teen pairs from a cross-section of high schools in the Philadelphia area concerning their perceptions of: (a) reasons why teens use drugs; (b) how frequently teens' close friends use drugs, compared to other students at their schools; (c) how frequently teens' close friends abuse drugs; and (d) how effective current strategies to prevent or reduce drug use are.

Results indicated that parents were more likely to list reasons for drug use with negative connotations (i.e., boredom, rebellion, loneliness, social pressure) as more important than their teens; this effect was nonexistent or reversed for reasons having healthier or more positive connotations (e.g., curiosity, fun, insight/experience). In addition, parents underestimated use of alcohol and marijuana relative to their teens' estimates; while estimates for less frequently used drugs by the two groups were less discrepant. Both parents and teens estimated substance use by other students at school to be higher than that by teens' close friends for all drug categories. Parents' estimates of the frequency with which teens' friends became drunk or high (viz., abused alcohol or drugs) were significantly lower than estimates by their teens. Finally, parents' ratings of the effectiveness of drug prevention strategies were consistently higher than those given by their teens. Teens rated peer advice to be the most effective strategy, followed by educational programs emphasizing social skills, effects of drugs, and effective decision-making. Results are discussed in terms of the evident need for parents to seek out and to understand teen points of view regarding drug use, as well as the need to recognize the importance of one's peer group in the formation of attitudes and perceptions about drugs.

129 McKenna, J. W., & Williams, K. N. (1993). **Crafting effective tobacco counteradvertisements: Lessons from a failed campaign directed at teenagers.** *Public Health Reports, 108*(Supp. 1), 85-89.

Focus-group research conducted by the Centers for Disease Control and Prevention's Office on Smoking and Health suggested that the desire of teenagers to gain control over their lives would make them responsive to a counteradvertising strategy aimed at exposing the predatory marketing techniques of the tobacco industry. On the basis of this strategy, the office developed draft print advertisements and a rough TV commercial featuring such theme lines as "You get an image. They get an addict." In those ads, "they" referred to cigarette companies. Subsequent testing of the campaign materials, however, indicated that the subtle, sophisticated execution of this concept of manipulation by the industry did not communicate clearly and effectively to an audience of young teens.

In fact, 38% of those who viewed the rough TV spot believed that the main message promoted smoking. These negative test findings underscore the critical need for ongoing audience research throughout the creative process to ensure that campaign planners stay "in tune" with their consumers.

130 McLean, A. L., & Flanigan, B. J. (1993). **Transition-marking behaviors of adolescent males at first intercourse.** *Adolescence, 28*(111), 579-95.

This study examined male transition-marking behaviors from adolescence into adulthood at the time of first intercourse. These include alcohol and drug use and sexual intercourse, and the companion behaviors of contraceptive use and planning of intercourse. The sample was comprised of 80 sexually active males aged 16 to 19 years who accompanied female companions to a health care clinic in the midwest which provides abortions. The major findings were similar to those the authors described in a previous study as typifying female adolescents. Alcohol use at first intercourse was unrelated to use of contraceptives at that time, but was inversely related to whether the first intercourse was planned (i.e., those who did not drink were much more likely to plan). Planning was also positively related to contraceptive use, but the relationship was less strong than for female cohorts.

131 McLellan, T., & Dembo, R. (Consensus Panel Chairs). (1993). ***Screening and assessment of alcohol- and other drug-abusing adolescents.*** (Treatment Improvement Protocol 3). (DHHS Publication No. SMA 93-2009). Washington, DC: U.S. Government Printing Office.

A protocol was developed by a consensus panel of researchers and practitioners for screening and assessment of AOD-abusing adolescents. The report concentrates on the strategies, procedures, and instruments that are appropriate for the initial detection of AOD-using or -abusing adolescents, the comprehensive assessment of their problems, and subsequent treatment planning. The TIP does not prescribe any screening or assessment tool. The purposes of the TIP are several: (a) to provide personnel involved in screening and assessing AOD abuse in youth (e.g., guidance counselors, substance abuse counselors, or nurses) with general guidelines for evaluating, developing, and administering screenings and assessment instruments and processes; (b) to inform a wide range of people whose work brings them in contact with adolescents in problem situations (for example, teachers, guidance counselors, school nurses, police probation officers, coaches, and family service workers) about the processes, methods, and tools available to screen for potential AOD problems in adolescents; (c) to discuss strategies and accepted techniques that can be used by primary AOD-abuse treatment personnel to detect related problems in the adolescent's life, including problems with family, peers, and psychiatric issues, and to see that these problems are dealt with during the primary AOD-abuse intervention; and (d) to outline an assessment system designed to screen teenagers with potential AOD problems at various points of identification.

132 Melby, J. N., Conger, R. D., Conger, K. J., & Lorenz, F. O. (1993). **Effects of parental behavior on tobacco use by young male adolescents.** *Journal of Marriage and the Family, 55*, 439-454.

A social-developmental model of early adolescent tobacco involvement was evaluated with a sample of 204 7th-grade boys. Data from the young adolescents, their parents, and siblings, were used to examine the influence of parental childrearing strategies (harsh/inconsistent and nurturant/involved) and reported parent, sibling, and peer tobacco use on tobacco involvement by early adolescents. Results from correlational analyses and structural equation modeling supported three of the four proposed models. Even after controlling for the effects of parental and sibling tobacco use, positive relationships were found between harsh/inconsistent parenting and adolescent tobacco use, and negative relationships between nurturant/involved parenting behaviors and adolescent tobacco use. Of particular interest, parenting behaviors had both direct and indirect effects on adolescent tobacco use through the adolescents' associations with tobacco-using peers.

133 Metropolitan Insurance Companies. (1993). **Trends in drug and alcohol use by youth in the U.S.A.** *Statistical Bulletin, 74*(3), 19-27.

For more than a decade, use of most illicit as well as licit drugs has been declining among U.S. high school students. The top four substances used by high school seniors continue to be alcohol, cigarettes, marijuana/hashish and all other illicit drugs combined. Despite decreases in rates of use and laws prohibiting sale to minors, not only

is alcohol drinking widespread among high school seniors, but the dangers of use are not appreciated. In 1992, more than half of seniors used alcohol in the past month; 28% reported binge drinking; and less than half felt great risk was associated with consuming five or more drinks at least once during a weekend. Drug use among elementary school students also has generally decreased since the late 1980s. Between 1987 and 1990, there was a significant decrease in the perceived use of beer, wine, and hard liquor by these students, but a less pronounced decrease evident for drinking wine coolers. In 1990, about half of 6th graders indicated "some" or "a lot" of peer pressure to try alcohol. Pressure to try wine coolers increased from 46% to 49% between 1987 and 1990 among students in grades 4 through 6, and 29% of these children said many of their friends had already tried these substances. For more than half of these young students, the school was the main source of their information about the dangers of alcohol and/or drug use in 1990.

134 Mezzich, A., Tarter, R., Kirisci, L., Clark, D., Buckstein, O., & Martin, C. (1993). **Subtypes of early age onset alcoholism.** *Alcoholism: Clinical and Experimental Research, 17*(4), 767-70.

Forty-three adolescents qualifying for a DSM-III-R diagnosis of alcohol abuse/dependence were classified according to the internalizing-externalizing behavior dimension. Two clusters were identified. The majority of subjects clustered into a group characterized by behavioral dyscontrol and hypophoria (history of suicide attempts) (cluster 2), whereas the other group was primarily featured by negative affect (cluster 1). Cluster 2 subjects demonstrated more severe alcohol and drug use-related problems, behavioral disturbances, and general psychopathology; lower prevalence of depressive disorders; and less severe anxiety disorders. These results, implicating two variants of adolescent alcohol abuse/dependence, suggest the need to tailor differential treatments to adolescents with alcohol abuse/dependence based on personality characteristics and clinical presentation.

135 Milgram, G. G. (1993). **Adolescents, alcohol and aggression.** *Journal of Studies on Alcohol*(11), 53-61.

Research findings demonstrate that the majority of young adults consume alcohol and that males drink more and more often than females. A significant number of high school seniors and college students have consumed five or more drinks in a row during a 2-week period. High-risk reasons for consumption include: to become intoxicated, to cope with a problem, because of anger and frustration. Social and behavioral consequences of alcohol use affect a number of young adults. Medium to heavy drinkers expect to experience more aggressiveness after drinking. Common risk factors for serious chronic delinquents and frequent users of drugs include psychological and personality factors as well as family conflict, peer factors, and school failure. Although research has not determined that alcohol/drugs cause crime or produce the motivation to commit crimes, a relationship between alcohol/drug use and aggressive behavior is apparent. Alcohol plays a significant role in adolescent deaths due to accidents, homicides and suicides, acts of sexual aggression, and criminality. Implications of the research findings are that programs need to be designed with a clear philosphy and realistic goals and they need to target at-risk adolescents. Implementation of promising prevention strategies should take place in the home, school and community, incorporating the influence of parents and peers.

136 Miller, T. Q. (1994). **A test of alternative explanations for the stage-like progression of adolescent substance use in four national samples.** *Addictive Behaviors, 19*(3), 287-293.

Previous research has established that there is a stage-like phenomenon of adolescent substance use such that alcohol use usually precedes marijuana use, and marijuana use usually precedes hard drug use. The current study tests three potential explanations for this stage-like phenomenon using nonstandard log-linear models. In four national surveys dating from 1974 to 1988, the results were consistent for both sexes, ages ranging from 12 to 18, and for Whites, Blacks, and Hispanics. The results suggest that adolescents are more likely to use alcohol before marijuana, and marijuana before hard drugs because these substances are more widely used and are used at early ages. An additional reason for the stage-like phenomenon is that there is also a group of adolescents who are willing to try all types of substances and a second group who are unwilling to use any substances. Implications for future longitudinal studies are discussed.

137 Molina, B. S. G., Chassin, L., & Curran, P. J. (1994). **A comparison of mechanisms underlying substance use for early adolescent children of alcoholics and controls.** *Journal of Studies on Alcohol, 55*, 269-275.

The current study examined differences between children of alcoholics (COAs) and controls in parent monitoring, stress-negative affect, and temperament mechanisms underlying early adolescent substance use. Using structural equation modeling, we tested whether these mechanisms were equally predictive of substance use for both groups. We extended an earlier study that tested mediators of COA risk for substance use but did not examine COA status as a moderator of these mechanisms. Overall, we found no evidence of differential importance for COAs and non-COAs of the parent monitoring and negative affect mechanisms. Parental socialization and negative affect mechanisms significantly predicted adolescent substance use regardless of COA status. Differences did emerge regarding the effects of age and parent education on peer substance use and the effect of sociability on adolescent substance use.

138 Montagne, M., & Scott, D. M. (1993). **Prevention of substance use problems: Models, factors, and processes.** *International Journal of the Addictions, 28*(12), 1177-1208.

The use of substances for medical or nonmedical reasons occurs in most cultures. Regardless of the reason for use, however, most types of substance use (or drug-taking behaviors) have their associated problem states. The prevention of substance use problems is an important issue and need in every society. In this review we present and discuss various models and factors that purport to describe and predict patterns of drug use, and we discuss various strategies to prevent the occurrence of substance use problems.

139 Morgan, L. K. (1994). **Selective guide to current reference sources on topics discussed in this issue.** *Journal of Addictive Diseases, 13*(1), 107-117.

Reference sources on alcohol and other drug research are reviewed in order to provide assistance to researchers in the field.

140 Morris, G. S. D., Vo, A. N., Bassin, S., Savaglio, D., & Wong, N. D. (1993). **Prevalence and sociobehavioral correlates of tobacco use among Hispanic children: The tobacco resistance activity program.** *Journal of School Health, 63*(9), 391-396.

To examine tobacco use patterns and its sociobehavioral correlates among Hispanic in-school youth, a tobacco use and knowledge survey was administered to 650 children from 4th through 6th grade classes, of which 69% (n = 453) were of Hispanic origin. Male Hispanics were more exposed to previous tobacco use (38% vs. 20%, $p < .05$), reported more current smoking, had more smoking friends, received more cigarette offers, and wanted to try a cigarette compared to females (all $p < .05$). Also, more previous alcohol use was noted in the previous tobacco users, indicating its potential as a "gateway drug." From multivariate analyses, being offered cigarettes was the strongest environmental indicator of previous tobacco usage, followed by having adults smokers in the house, smoking friends, (all $p < .01$), and being around other smoking youth ($p < .05$). This study offers additional knowledge about factors that may cause Hispanic youth to initiate smoking, and suggests the need to address peer and social influences in school-based substance abuse programs.

141 Morrison, M. A., Smith, D. E., Wilford, B. B., Ehrlich, P., & Seymour, R. B. (1993). **At war in the fields of play: Current perspectives on the nature and treatment of adolescent chemical dependency.** *Journal of Psychoactive Drugs, 25*(4), 321-330.

While the numbers of adolescents entering drug abuse treatment are not increasing dramatically, those entering treatment are getting sicker, according to clinical reports. Adolescents are entering treatment with multiple problems, including severe learning disorders, borderline personality disorders, multiple diagnoses of addiction, mental health and physical problems (including HIV/AIDS), and issues arising from child abuse and incest. A case study in client-therapist interaction is presented, highlighting the concept of the wounded healer. The disease model

of addiction is discussed as it applies to adolescents, as is their need for habilitation, not rehabilitation. Current abuse trends and the drugs involved are also discussed. Multiple diagnoses, physiologic disorders, HIV testing and counseling, surgical problems, and maternal/neonatal complications are reviewed.

142 Moscicki, A. B., Millstein, S. G., Broering, J., Irwin, C. E., & Jr. (1993). **Risks of human immunodeficiency virus infection among adolescents attending three diverse clinics.** *Journal of Pediatrics, 122*(5), 813-820.

This study was performed to identify specific high-risk behaviors, such as unprotected oral, anal, and vaginal intercourse and substance abuse, associated with human immunodeficiency virus (HIV) infection among adolescents attending three diverse clinics located in a localized geographic area: a university-based clinic, a Planned Parenthood clinic, and an inner-city public health clinic (PHC). Adolescents (671 females and 207 males) attending one of the three clinics completed a structured questionnaire. Adolescents attending either the university-based clinic or the Planned Parenthood clinic had higher rates of substance abuse around sexual activity than those who attended the PHC ($p < 0.001$). On the other hand, adolescents attending the PHC had higher rates of homosexual experiences, no birth control use, and having multiple partners ($p < 0.001$). Similarities among patients at the three clinic sites included high rates of anal intercourse (21%), unprotected vaginal sex (95%), oral sex (73%), and poor communication skills (42%). It is evident that adolescents attending general medical clinics in the San Francisco Bay area engage in high-risk behaviors that place them at risk for transmission of human immunodeficiency virus even though many have had previous education about acquired immunodeficiency syndrome and sexually transmitted disease. Specific risk factors include unprotected receptive anal intercourse, unprotected vaginal intercourse with new and unknown partners, experience in homosexual behavior, high rates of oral sex, multiple partners, poor communication skills, and frequent use of illicit substances in conjunction with sex. The differences found among sites indicate the need for health care providers and prevention programs to emphasize practices specific to the adolescents in their service area.

143 Moss, H. B., Kirisci, L., Gordon, H. W., & Tarter, R. E. (1994). **A neuropsychologic profile of adolescent alcoholics.** *Alcoholism: Clinical and Experimental Research, 18*(1), 159-63.

Male and female adolescents who qualified for a DSM-III-R diagnosis of Alcohol Abuse or Dependence and a control sample of nonalcohol-abusing male and female adolescents were administered a battery of intellectual, achievement, and neuropsychologic tests. Alcohol-abusing adolescents were found to have significantly lower verbal and full-scale IQ scores than controls. Furthermore, alcohol-abusing adolescents were found to have a trend toward lower age-standardized scores on achievement tests of reading ability and spelling. Surprisingly, alcohol-abusing adolescents made less perseverative errors and commission errors on a learning and memory task than controls. Control males performed worse on the Wisconsin Card Sort than alcoholic males, whereas alcohol-abusing females performed worse than control females. In addition, alcoholic subjects scored better than controls on a measure of visual memory sensitivity. The results indicate that adolescent alcohol abusers in general have poorer language skills than adolescents who do not abuse alcohol. However, in contrast to results obtained from studies of adult alcoholics, there is little evidence of significant brain damage as revealed by using neuropsychologic test performance.

144 Mott, S. H., Packer, R. J., & Soldin, S. J. (1994). **Neurologic manifestations of cocaine exposure in childhood.** *Pediatrics, 93*(4), 557-560.

During a one-year period, 41 children between the ages of 2 months and 18 years who had been exposed to cocaine, were examined in the emergency department at the Children's National Medical Center. Cocaine exposure was documented on urine samples; all were confirmed by urine gas chromatographic/mass spectrometric analysis. Nineteen (46%) of 41 had neurologic abnormalities, including seizures (7), obtundation (6), delirium (4), dizziness (1), drooling (1), and ataxia (1). In 14 others, the neurologic effects of cocaine were difficult to determine because of other concomitant medical conditions, including head injuries and severe abdominal or chest trauma. Two major age-related patterns were seen: (a) in each child younger than 5 years, seizures and obtundation; and (b) in 11 older children, delirium (3), dizziness (1), drooling (2), and lethargy (4). Seizures, occurring at ages 12 months to 8 years, were focal with secondary generalization in three and generalized in four. They were associated with fever in two children. Six children had no further seizures, and one developed a mixed-seizure disorder. Passive intoxication while being in a room in which "crack" was smoked was the most likely cause of exposure for young victims. Multiple

drug abuse was not documented in any child with neurologic impairment. It was concluded that cocaine exposure is common in children in our urban setting; that in children 8 years of age or younger, "passive" ingestion/inhalation is associated with focal and generalized seizures without evidence of structural brain injury. Urine toxicological study for cocaine exposure is recommended in all first-time seizures.

145 Muraskin, L. D. (1993). ***Understanding evaluation: The way to better prevention programs.*** (ED/OESE92-141). Washington, DC: U.S. Government Printing Office.

This guide to evaluation is intended to help school and community staff perform the evaluations required under the Drug-free Schools and Communities Act. The purposes of evaluation are reviewed, along with evaluation design and implementation.

146 Murray, S., & Brewerton, T. (1993). **Abuse of over-the-counter dextromethorphan by teenagers.** *Southern Medical Journal, 86*(10), 1151-3.

Dextromethorphan, the d-isomer of the opiate against levorphanol, has none of the analgesic or sedative effects associated with the opiates and is approved for over-the-counter use as an antitussive (cough suppressant). It is available, in various combinations with other medications, in nonprescription cough suppressant and common cold formulations, and its availability in the United States is not controlled. In this paper we have reported two cases of recreational use of dextromethorphan-containing cough syrup by two unrelated teenage boys. Despite the safety of this medication when used at the recommended dosage, there have been cases of "recreational" use of dextromethorphan as well as death by overdose. Although usually thought to be nonaddictive, dextromethorphan produces a substance dependence syndrome, and physicians should be aware of its abuse potential, particularly by youths.

147 Myers, M. G., & Brown, S. A. (1994). **Smoking and health in substance-abusing adolescents: A two-year follow-up.** *Pediatrics, 93*(4), 561-6.

To examine the prevalence and persistence of cigarette smoking along with health outcomes in a clinical sample of substance-abusing adolescents, subjects were recruited from two private, hospital-based, inpatient adolescent substance-abuse treatment facilities for a 2-year prospective case series study. A consecutive sample of 166 adolescents, ages 12 to 18, meeting DSM-III-R criteria for substance abuse participated in the present investigation. Of the original sample, 154 and 144 were interviewed 12 and 24 months after discharge, respectively. Information regarding cigarette smoking, drug and alcohol use, and respiratory problems was based on self-report by the adolescents and was corroborated by parent interview. The prevalence of smoking in this sample of teens immediately before treatment was 85%. Sixty-one percent of the sample smoked 1/2 pack or more/day and 75% were daily smokers. Although prevalence (74 and 77%) and average daily cigarette consumption (11.1 and 10.7 cigarettes daily) decreased at 12 and 24 months after treatment, rates remained very high. Teens reporting posttreatment respiratory problems smoked more, and heavier smokers at the time of treatment were more likely to report respiratory problems at follow-up than lighter smokers. Substance-abusing teens smoke at rates far above those of the general adolescent population. Further, these teens appear at increased risk for negative health consequences regardless of posttreatment drug and alcohol use. These findings highlight the importance of preventing adolescent cigarette smoking by substance-abuse treatment programs.

148 Norman, E., & Turner, S. (1993). **Adolescent substance abuse prevention program: Theories, models, and research in the encouraging 80's.** *Journal of Primary Prevention, 14*(1), 3-20.

Theories of human behavior and personality development are examined as the bases for substance-abuse prevention strategies, the source of program models; and the research literature of the 1980s is reviewed in regard to the effectiveness of the major program models for preventing adolescent substance abuse. Discussion focuses on 5 theories: problem behavior, social learning, cognitive and social inoculation, stage, and biopsychosocial. Substance abuse prevention programs that are based on these theories are categorized as belonging to the social environmental model and are recommended as the most effective type. Prevention strategies should target adolescents' expectations and community norms regarding substance use and should enhance social and resistance skills.

149 Oetting, E. R. (1993). **Orthogonal cultural identification: Theoretical links between cultural identification and substance use.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 32-56). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

The theory of orthogonal cultural identification shows that identification with one culture can be independent of identification with any other culture. Instead of being placed in opposition to each other, cultural identification dimensions are at right angles; they are, in principle, uncorrelated. The orthogonal model points out that any combination or pattern of cultural identification is possible. A person may have a single identity, may be bicultural, may have a high identification with one culture and a modest one with another, or may have a weak identification with any culture. There are no simple, clear links between cultural identification and drug use.

A high level of identification can lead to substance use if the culture approves. It can prevent use if the culture disapproves. It can even protect one gender while encouraging use in the other. Despite this complexity, a high cultural identification is almost always an asset; it suggests access to society's resources, success in meeting a culture's requirements, and growing out of that, general satisfaction with life. On the other hand, low cultural identification is always a source of problems, and these troubles may or may not include substance use. Low identification means that people are not meeting the requirements of an important subculture. They are forced to try to meet their personal and social needs by identifying with another subculture, and they are likely to locate other youth who are having problems in meeting cultural requrements. These youth will form peer clusters that meet each other's needs and that have a high potential for deviance, including drug use.

The orthogonal model also indicates that any pattern of cultural and subcultural identification is possible. There are youth who apparently have a high level of macrolevel identification, but who still get heavily involved with drugs. They have access to resources, they meet the requirements of the subcultures in their environment, and they should therefore be able to meet all their needs within the social structure. Despite this potential, they identify with deviant peer clusters. These youth either have pathological needs that cannot be met by ordinary means, or, through chance or choice, have become involved with other youth who have problems. Once involved with a deviant peer cluster, they develop needs that can be met only within that kind of group, so the involvement is self-perpetuating. Their high level of cultural identification is still an asset because, if these youth survive the deviant peer cluster, they may turn out to be successful members of society. They have skills developed in the mainstream of society to fall back on. In contrast, the most severely troubled people are those who have been unable to establish a solid cultural identification with any macroculture or with any but the most deviant subcultures. These anomic people have few ways to meet any of their needs. Virtually all their social contacts are among the more deviant groups, and they are likely to be heavily drug involved. The best example might be chronic inhalant users. Inhalant-dependent adults are likely to come from the ranks of those who are culturally marginal, regardless of the culture in which they are trying to exist. They do not have the ability to meet cultural requirements, even of the deviant subcultures that might provide alternatives for other people. Even in the subculture of heroin addicts, those who chronically use inhalants are usually viewed as outsiders and as incompetent. They do not have the ability to hustle heroin, to "take care of business."

150 O'Malley, P. M., Johnston, L. D., & Bachman, J. G. (1993). **Adolescent substance use and addictions: Epidemiology, current trends, and public policy.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 227-248.

It seems highly likely that the slower decline in use of alcohol and tobacco compared to illicit drugs is related to the legal status of those licit drugs and perhaps to an even greater extent to the amount of promotion of their use. Particularly in the case of tobacco, youthful use is critical to the establishment of the habit, because relatively few individuals begin smoking in adulthood. The Monitoring the Future surveys have found that of nonsmoking high school seniors, 86% were nonsmoking five to six years later. But even among light smokers (less than one cigarette per day), only 58% were nonsmokers five to six years later, and most of the continuing smokers had increased their rate of smoking. Among those who had been heavier smokers in high school, continuation rates were very high.

Several policy implications can be drawn: One is that cigarette smoking is clearly a dependence-producing habit, one that is difficult to break. Thus, smoking prevention education must continue to be directed at youngsters. And the smokers among them should be encouraged to discontinue the habit as soon as possible. The ability of advertising and promotion interests to target these youthful smokers should be curtailed. The trends in marijuana and cocaine use indicate particularly that social norms and beliefs about drug use can clearly be extremely effective means of reducing youthful use. Policies that can influence such norms and beliefs, however, are not so obvious as in the

case of the legally available substances. It does appear that credible evidence about the potential negative effects can alter beliefs, sometimes rather dramatically, as in the case of crack cocaine. It is important that such negative effects not be overstated, a lesson that was learned during the early years of the drug epidemic. But it is also important that we not draw the mistaken conclusion that realistic information about harmful drugs and harmful patterns of drug use would not be helpful in our attempts to prevent drug use.

151 Pagliaro, L. A., & Pagliaro, A. M. (1993). **The phenomenon of abusable psychotropic use among North American youth.** *Journal of Clinical Pharmacology, 33*(8), 676-90.

Abusable psychotropic use can, and does, affect all North American youth, either directly or indirectly, regardless of age, gender, culture, ethnic background, education, race, or socioeconomic status. Over the last decade, the morbidity and mortality associated with abusable psychotropic use among youth have become staggering. A current overview of the phenomenon of abusable psychotropic use among youth in North America, including the use of alcohol, cannabis, cocaine, LSD, nicotine, and polydrug use, is presented with attention to the expanding role of clinical pharmacologists in relation to both prevention and treatment. The Mega Interactive Model of Abusable Psychotropic Use Among Youth is presented as a heuristic device to assist clinical pharmacologists, and other health care providers, in addressing the multifactorial interactive aspects of this complex phenomenon as observed in the pediatric age group. In this regard, attention is given to the interaction of the Abusable Psychotropic Dimension, including the Abusable Psychotropic Variables (e.g., pharmacokinetics, abuse potential) and Pattern of Use Variables (e.g., social use, abuse, compulsive use), with the Young Person, Societal, and Time Dimensions.

152 Peck, D. D. G., Acott, C., Richard, P., Hill, S., & Schuster, C. (1993). **The Colorado Tobacco-free Schools and Communities Project.** *Journal of School Health, 63*(5), 214-217.

This article defends the appropriateness of tobacco-free school policies as an effective tool toward ensuring young people develop into healthy and intellectually strong adults, and demonstrates how such a policy can be introduced into a school district. Health education efforts to eliminate tobacco use are widely considered more effective when carried out in concert with school policies and adult role models offering the consistent message that tobacco use is unhealthy and unacceptable. Studies indicate students who attend schools with strict smoking policies are less likely to begin smoking than students who attend schools without such policies. Through research, support, and guidance, the Colorado Tobacco-Free Schools and Communities Project successfully has assisted almost half the 176 school districts in Colorado to adopt such policies.

153 Pfeffer, J. (1993). **An exploratory study of decision making as related to the tobacco and alcohol use of eighth graders.** *Journal of Alcohol and Drug Education, 39*(1), 111-122.

Eighty-five rural 8th graders at a Maryland middle school were surveyed to examine decision-making factors as related to tobacco and alcohol use. Students listed responses to a scenario involving the offer of a ride to a party with a possibly inebriated driver. Ten decision-making factors were identified: 74% of the sample mentioned accident risk. Nonsmokers and nondrinkers more frequently mentioned various risks, uncertainties about party activities, and interpersonal influences. Smokers and drinkers, especially frequent users, more frequently mentioned attractions to the party and internal influences.

154 Phelps, L., Andrea, R., Rizzo, F. G., Johnston, L., & Main, C. M. (1993). **Prevalence of self-induced vomiting and laxative/medication abuse among female adolescents: A longitudinal study.** *International Journal of Eating Disorders, 14*(3), 375-8.

In order to assess the prevalence and stability of weight reduction techniques utilized by adolescent females, three comprehensive samples of middle school and high school students (ages 12-18) were surveyed in the Spring of 1984, 1989, and 1992. All participants were enrolled in the same school district to ensure that the groups were demographically equivalent. The results demonstrated a significant decrease in the use of appetite suppressants among

high school students. However, middle school females reported a significant increase in medication use and self-induced vomiting during the same 7-year period. Laxative abuse has persisted unchanged for a small segment of both populations.

155 Pierce, J. P., Lee, L., & Gilpin, E. A. (1994). **Smoking initiation by adolescent girls, 1944 through 1988.** *Journal of the American Medical Association, 271*(8), 608-611.

To identify trends in smoking initiation among persons aged 10 to 20 years that might reflect the impact of specific targeting of tobacco advertising to women, data from the National Health Interview Surveys on age of initiation of smoking (survey years 1970, 1978, 1979, 1989, 1987, and 1988) were used to construct age-specific rates of smoking initiation for males and females aged 10 to 20 years from 1944 through the middle 1980s. The raw rates were smoothed to allow trends to be more easily identified. Information from 102,626 respondents was used. In 18- to 20-year-old women, initiation rates peaked in the early 1960s and steadily declined thereafter. In girls younger than 18 years, smoking initiation increased abruptly around 1967, when tobacco advertising aimed at selling specific brands to women was introduced. This increase was particularly marked in those females who never attended college (1.7-fold higher). Initiation rates for females younger than 18 years peaked around 1973, at about the same time sales of these brands peaked. After a steep postwar (1944 to 1949) decline, initiation rates in 18- to 20-year-old men did not decrease until the middle to late 1960s. Initiation rates for boys younger than 16 years showed little change during the entire study period. The tobacco advertising campaigns targeting women, which were launched in 1967, were associated with a major increase in smoking uptake that was specific to females younger than the legal age for purchasing cigarettes.

156 Piper, D. L., King, M. J., & Moberg, D. P. (1993). **Implementing a middle school health promotion research project: Lessons our textbook didn't teach us.** *Evaluation and Program Planning, 16*, 171-180.

Healthy for Life is an adolescent health promotion research project for middle school students that focuses on behaviors in five interrelated areas: nutrition, tobacco, alcohol and marijuana use, and human sexuality. This research project required the recruitment of 22 Wisconsin middle schools. The demands of rigorous evaluation research and the topics involved, expecially sexuality, made the recruitment of schools challenging. This article examines the lessons learned from the process regarding: (a) the tensions between the needs of independent school districts and the research goals of the project; (b) the expectations of schools and teachers regarding health education and research; (c) the relative success of various recruitment strategies and approaches; (d) the variation in school district approval processes and decision-making styles and their effects on implementation; (e) practical issues limiting involvement; and (f) responses of school administrators and faculty to program messages, teaching techniques, and the need for consistent implementation. Because adolescent health promotion efforts often involve in-school interventions, the practical lessons from Healthy for Life are invaluable for anyone planning school-based programming or research.

157 Pollard, J. A. (1993, November). ***An integration of survey findings regarding substance use for minority youth: 1985-1991.*** Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

Meta-analytic techniques were used to investigate differences in alcohol, tobacco, and other drug use for the five major ethnic groups in the U.S.: Whites, Blacks, Hispanics, Asians, and American Indians. Data from 53 national, state, and local surveys, conducted between 1985 and 1991, were incorporated into the meta-analysis. It was found that White youth had the highest prevalence rates of the five groups for alcohol, tobacco, and marijuana use over most measured periods; and Hispanic and American Indian youth had rates closest to those of Whites. The same pattern held true for illicit drugs including cocaine, hallucinogens, and inhalants. The differences between White youth, on the one hand, and Blacks and Asians, on the other, were found to be greater for monthly and annual prevalence rates, and smaller for daily, weekly, and lifetime use. Analyses also showed that differences between Whites and other groups increased with age; that is, prevalence rates among Whites increased more rapidly than among other ethnic groups.

158 Pride, I. (1993). ***1992-93 National Summary-USA: Grades 6 to 12.*** Atlanta, GA: Pride, Inc.

Graphs and tables of student drug use in the United States are presented. Section headings for graphs include: (a) drug use; (b) location of drug use; (c) time of drug use; (d) drug use by peers; (e) perceived harm of drug use; and (f) availability of drugs. The substances covered include beer, liquor, marijuana, cocaine, inhalants, and hallucinogens. Other data collected include: (a) personal and family information; (b) student characteristics; (c) initiation; (d) past year frequency; (e) effects; (f) friends' activities; (g) perceived harmfulness of drugs; (h) availability; and (i) frequency of use. The substances covered include cigarettes, beer, wine coolers, liquor, marijuana, cocaine, uppers, downers, inhalants, and hallucinogens.

159 Radakovich, J., Broderick, P., & Pickell, G. (1993). **Rate of anabolic-androgenic steroid use among students in junior high school.** *Journal of the American Board of Family Practice, 6*(4), 341-5.

Anabolic-androgenic steroid use has become an increasingly large problem. Studies document steroid use in high-school students, but not students in junior high school. We surveyed 7th-grade students to assess rate of use and knowledge about steroids. Students completed a 22-question survey instrument that addressed previous steroid use, knowledge about the effects of steroids, other previous substance abuse, and demographic data. Of those students who admitted to using steroids, 4.7% were male and 3.2% were female. Those more likely to have tried steroids included Blacks ($p < 0.05$), 15-year-olds ($p < 0.05$), football players ($p < 0.025$), wrestlers ($p < 0.005$), and past users of alcohol ($p < 0.005$) or tobacco ($p < 0.005$). There were significant differences between steroid users and nonusers in knowledge about the effects of anabolic-androgenic steroids on the body: steroid users knew less than nonusers. The establishment of steroid use in junior high school should cause physicians to seek signs or history of steroid use, especially in patients who are members of groups more likely to use them. In addition, physicians should initiate dialogue about steroids with patients before they are likely to have tried them.

160 Reese, F. L., Chassin, L., & Molina, B. S. G. (1994). **Alcohol expectancies in early adolescents: Predicting drinking behavior from alcohol expectancies and parental alcoholism.** *Journal of Studies on Alcohol, 55*, 276-284.

The current study examined the role of alcohol expectancies and parental alcoholism in prospectively predicting alcohol consumption and consequences among early adolescents. We examined whether personal effects expectancies would predict "problem" alcohol use outcomes and if social effects expectancies would predict "normal" alcohol consumption. Although confirmatory factor analytic techniques showed considerable overlap between personal and social effects expectancies, we found evidence to suggest that distinctiveness between these constructs may increase at higher levels of alcohol consumption. Regression analyses supported the utility of alcohol expectancies in prospectively predicting alcohol consequences over and above pre-existing alcohol consumption, and parental alcoholism. However, there was no consistent support for the hypothesis that personal and social effects expectancies predicted different types of drinking outcomes, possibly because of the young age of the current sample.

161 Ricardo, I. B. (1994). **Life choices of African-American youth living in public housing: Perspectives on drug trafficking.** *Pediatrics, 93*(6), 1055-1059.

Our understanding of youth involvement with drug trafficking is derived mainly from survey data. Personal narratives present the life choices that low-income, urban Black youth perceive and the decisions that they make. Narratives provide insight into the complexities inherent in those choices. Twenty youth were interviewed through semiclinical, open-ended interviews. Data were analyzed within the context of psychological factors that influence child development, including attributions of personal meaning and identity formation. Youth narratives reflect an awareness of the contradictory messages present within their environments. Youth articulate the importance of family and peer influences on their decisions to engage in or refrain from drug trafficking. Their perceptions of themselves as belonging to a racial minority group also influence their views regarding the viable alternatives available to them for achieving success. Youth who are able to identify alternative activities from which they can derive positive experiences are less likely to become involved in drug trafficking. Recommendations for intervention at the familial, community, and institutional levels are discussed.

162 Richardson, J. L., Radziszewska, B., Dent, C. W., & Flay, B. R. (1993). **Relationship between after-school care of adolescents and substance use, risk taking, depressed mood, and academic achievement.** *Pediatrics, 92*(1), 32-8. Comment in: Pediatrics Jul, 92(1):146-8.

To examine the relationship between parental monitoring and six negative behaviors: cigarette, alcohol, and marijuana use; depressed mood; risk taking; and lower academic grades, 3,993 9th-grade students were surveyed in six Southern California school districts. The sample consisted of 1,930 boys and 2,063 girls, self-classified as non-Hispanic White (32%), African-American (13%), Hispanic (46%), or Asian (9%). Small but significant relationships were found between unsupervised care after school and susceptibility to cigarette, alcohol, and marijuana use; depressed mood; risk taking; and lower academic grades. Adolescents who were unsupervised at home were slightly more likely to engage in problem behavior than those who were supervised at home. Adolescents at a neighbor's house, at school, or at a job and especially those who "hang out" were most likely to engage in problem behavior. Risk was higher if the parent had an unengaged parenting style. Although girls were less likely than boys to engage in problem behavior when supervised, as supervision decreased they were significantly more likely to have each of these problems. Family structure had little impact on risk.

163 Rickert, V. I., Graham, C. J., Fisher, R., Gottlieb, A., Tosclair, A., & Jay, M. S. (1993). **A comparison of methods for alcohol and marijuana anticipatory guidance with adolescents.** *Journal of Adolescent Health, 14*, 225-230.

The purpose of this study was to compare adolescents' knowledge of alcohol after receiving either a computer-assisted instruction program, or physician-delivered anticipatory guidance, or no intervention. In addition, adolescents' satisfaction was compared between intervention groups. A total of 89 adolescents attending a general medical clinic were randomly assigned to one of three conditions. The participants were from low-to-middle income families, and the mean age was 15.5 years. A two-way analysis of variance found significant main effects for both group and gender. Those adolescents in both intervention groups were significantly more knowledgeable, and males demonstrated the highest knowledge scores. There was a significant interaction between group and gender, with females more satisfied with the computer-assisted instruction as compared to males who preferred anticipatory guidance. These data suggest that the use of computer technology during a well-adolescent health visit is effective and efficient in transmitting drug-related information.

164 Riggin, O. Z. (1993). **Adolescent substance abuse: Prevalence, assessment, prevention, and treatment.** *Nurse Practitioner Forum, 4*(4), 207-15.

Substance abuse continues to be a major problem in the preadolescent and adolescent age groups. Although some progress appears to have occurred in recent years, prevalence of alcohol and other drugs requires constant vigilance. This article reports current statistics of alcohol and drug use in the adolescent population. The nurse practitioner's role as a health care provider for adolescents relative to screening, assessment, prevention, treatment, and referral for substance abuse is emphasized.

165 Rogers, P. D., & Adger, H. J. (1993). **Alcohol and adolescents.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 295-304.

Most adolescents drink alcohol, and many (25-33%) get drunk at least twice a month. There is no evidence to suggest that the problem of adolescent alcohol abuse is going to lessen. Although many seem to consider alcohol abuse a "social" problem, the use and abuse of alcohol by adolescents represents a major health problem. Physicians need to be aware that their adolescent patients, including those who are pregnant, may be affected. If they ask the right questions and can gain the trust of patients, they usually will be honest about AOD use. Once the problem is identified, it becomes the physician's responsibility to see that the patient gets appropriate treatment. Physicians must also consider their responsibility for preventive health care and patient education. For physicians play a unique role in their patients' lives, and can make a difference, often when no one else can.

166 Rollin, S. A., Rubin, R., Hardy-Blake, B., Allen, P., Marcil, R., Groomes, E., & Winningham, K. (1994). **Project K.I.C.K., a school-based drug education research project — Peers, Parents and Kids.** *Journal of Alcohol and Drug Education, 39*(3), 75-86.

Results are reported from the first phase of a three-phase research project, Project KICK (Kids In Cooperation With Kids). The project includes a school-based research study that examined the interaction between parent education, positive peer-role modeling and drug education for third graders. The general hypothesis was that the intervention would lead to an increase in self-esteem, improved attitudes, increased knowledge regarding drugs, and an improvement in the quality of parent-child relationships among third graders. Preliminary results were encouraging. Increases were found in the predicted direction on all major variables except for drug information. The site of this study was a medium-sized southern city. Students were selected for the investigation from a population of 132 grade 3 students at a local elementary school. Two classes were randomly selected and assigned to the experimental group and two were randomly selected and assigned to the comparison group. Included in the sample were the students' parents who also received a parallel intervention. Grade 7 students (one "buddy" for each two elementary students) from a middle school served as the positive peer models.

167 Romer, D. (1994). **Using mass media to reduce adolescent involvement in drug trafficking.** *Pediatrics, 93*(6), 1073-1077.

Drug trafficking among adolescents is a newly recognized high-risk behavior that seems to be involving large numbers of youths. Strategies to prevent and/or alter this behavior must be developed and evaluated. In view of the high exposure of adolescents to the mass media, interventionists seeking to reduce adolescent risk behavior have increasingly employed the media in their efforts to reduce adolescent risk behaviors in general. However, not all risk behaviors may be amenable to change as a result of this approach. Therefore, before utilizing this approach to address adolescent drug trafficking, it is important to investigate previous efforts targeting related risk behaviors. Mass media campaigns against the use of drugs have been common in the U.S. and seem to have played a role in reducing consumption of both legal and illegal drugs. The most effective messages seem to focus on the risks of drug use and the social disapproval that attends use. The mass media may increase the influence of these antidrug messages by changing the social climate surrounding drug use. The mass media may be a particularly effective way to reach adolescents and their parents in communities in which adolescent drug trafficking is prevalent and to unite the institutions that could influence adolescents against involvement in the drug trade. However, intervention efforts must also contend with the economic incentives of the drug trade in poor, central-city communities.

168 Rosenbaum, D. P., Flewelling, R. L., Bailey, S. L., Ringwalt, C. L., & Wilkinson, D. L. (1994). **Cops in the classroom: A longitudinal evaluation of Drug Abuse Resistance Education (DARE).** *Journal of Research in Crime and Delinquency, 31*(1), 3-31.

Although aggressive enforcement programs have been the backbone of our national drug control policy, school-based drug education has been widely praised as the most promising strategy for achieving long-term reductions in the demand for drugs and alcohol. Employing specially trained police officers in the classroom, Project DARE has become America's most popular and prevalent drug education program. Despite this status, the effectiveness of the program has yet to be demonstrated. A longitudinal randomized experiment was conducted with 1,584 Illinois elementary school students to estimate the effects of DARE on their attitudes, beliefs, and drug use behaviors in the year following exposure to the program. DARE had no statistically significant main effects on drug use behaviors and had few effects on attitudes or beliefs about drugs, although significant interactions between DARE and other factors (e.g., metropolitan status) suggest that some program effects varied across subgroups of the target population. This research provides a test of the comprehensive model of school-based prevention and helps to identify possible differential effects of this drug education initiative.

169 Russac, R. J., & Weaver, S. T. (1994). **Fine-tuning the prevention message: A developmental perspective.** *Journal of Alcohol and Drug Education, 39*(3), 46-55.

Recently, developmentalists and educators have begun to criticize the quantitative approach to education on the grounds that it does not take into account unique differences in the way children at different ages (or more appropriately, at different stages, where stage refers to a developmentally appropriate age grouping) understand the world. Young learners are not just quantitatively different in the sense of knowing less. They are also qualitatively unique inasmuch as the way they learn differs from the way older children and adults learn. The pedagogical implication of a qualitative perspective is that educators cannot simply take one message and modulate its level of difficulty for presentation to varying age groups. Nor can they apply a single teaching strategy to children of all ages. They must think, instead, in terms of messages, instructional techniques, and evaluation methods appropriately aimed at children within specific developmental stages.

170 Ryan, A. G. (1993). **An examination of the place of formal recommendations in naturalistic evaluations.** *Evaluation and Program Planning, 16*(2), 143-48.

The status of formal recommendations is different in the naturalistic evaluation model than in the traditional empirical model. The evaluation of a high school peer support program for alcohol abuse prevention illustrates that reader-generated recommendations may have more usefulness and impact than do evaluator-generated ideas. (SLD).

171 Savin-Williams, R. (1994). **Verbal and physical abuse as stressor in the lives of lesbian, gay male, and bisexual youths: Associations with school problems, running away, substance abuse, prostitution, and suicide.** *Journal of Consulting Clinical Psychology, 62*(2), 261-269.

A common theme identified in empirical studies and clinical reports of lesbian, gay male, and bisexual youths is the chronic stress that is created by the verbal and physical abuse they receive from peers and adults. This article reviews the verbal and physical abuse that threatens the well-being and physical survival of lesbian, gay male, and bisexual youths. This response to gay male, lesbian, and bisexual adolescents by significant others in their environment is often associated with several problematic outcomes, including school-related problems, running away from home, conflict with the law, substance abuse, prostitution, and suicide. Although the causal link between these stressors and outcomes has not been established scientifically, there is suggestive evidence that these outcomes are consequences of verbal and physical harassment.

172 Schwartz, R. H. (1993). **Testing for drugs of abuse: Controversies and techniques.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 353-370.

Urine tests for drugs are accurate, relatively inexpensive, and easy to perform. When clinically indicated, they can be useful diagnostic tools in the evaluation of patients who are suspected of having a drug abuse problem. Ethical and legal issues must be addressed beforehand. Careful attention to collection and interpretation techniques, as well as awareness of the significance of established cutoff points, and intentional and unintentional adulterant is crucial.

173 Segal, B. (1994). **Urban-rural comparisons of drug-taking behavior among Alaskan youth.** *International Journal of the Addictions, 29*(8), 1029-1044.

Drug-taking behavior was compared among Alaskan youth in urban, rural, and semiurban communities, using two sets of data. The first was collected in 1981-82 from 3,609 Alaska secondary school students in two large cities, two smaller cities, and four rural centers; and the second was collected in 1987-88 from 3,814 secondary students in the same locations plus two additional coastal communities. It finds significant differences among these locations, which are largely attributable to variations in age of first trying marijuana and alcohol. Racial group effects were found specific to initiation into marijuana, and gender differences specifically related to initiation to alcohol. Differences by race seemed more significant than differences by location. It is argued that, accordingly, race, ethnicity, and gender need to be taken more seriously in prevention programming. Particularly, the contribution of racism to drug use among American Indian and Alaska Native youth needs to be addressed.

174 Shafer, M. A., Hilton, J. F., Ekstrand, M., Keogh, J., Gee, L., DiGiorgio, H. L., Shalwitz, J., & Schachter, J. (1993). **Relationship between drug use and sexual behaviors and the occurrence of sexually transmitted diseases among high-risk male youth.** *Sexually Transmitted Diseases, 20*(6), 307-13.

Sexually active adolescents, especially those in detention, are at high risk for acquisition of sexually transmitted diseases (STDs), including HIV infection; yet little information is available that describes their risk behaviors associated with STDs. The overall objective was to define the relationship between risk behaviors and STD acquisition among adolescents. The first goal was to characterize drug use and sexual behaviors that place a population of adolescent male detainees at STD/HIV risk. The second goal was to define possible interrelationships between drug use, especially alcohol use, and risky sexual behaviors with STD acquisition. The study group consisted of 414 adolescent male detainees 12 to 18 years of age who participated in an interview and a clinical assessment. Of these, 269 subjects agreed to STD laboratory tests, including serologic testing for hepatitis B and syphilis, and urethral cultures to screen for chlamydial and gonorrheal urethritis. Results showed that 15% had current evidence of at least one STD, and 34% had a history or current evidence of at least one occurrence of an STD. The subjects were frequently engaging in risky sexual and drug use behaviors. Two multivariate models described three factors that significantly place the male adolescent in detention at risk for STDs: multiple sexual partners, inconsistent condom use, and the quantity of alcohol consumed per week. Youth in detention place themselves at risk for STDs including HIV because of their risky sexual behavior and drug use. Addressing alcohol use and barriers to condom use appear to be essential components of any STD prevention program targeting this largely minority youth population.

175 Shope, J. T., Copeland, L. A., Maharg, R., Dielman, T. E., & Butchart, A. T. (1993). **Assessment of adolescent refusal skills in an alcohol misuse prevention study.** *Health Education Quarterly, 20*(3), 373-390.

Although many substance abuse prevention programs seek to enhance the ability of adolescents to refuse offers of alcohol and other drugs, few report assessments of refusal skill ability or its relationship to substance use. This report describes a procedure to assess the ability of adolescents to refuse the offer of a beer, and presents the findings of those assessments as well as their relationships to alcohol misuse prevention knowledge, use, and misuse. A one-third random sample ($N = 1012$) of Michigan 10th graders participating in a longitudinal evaluation of an alcohol misuse prevention curriculum was assessed individually. Students rated their own refusals, which were also rated by trained female and male raters. The results indicated that adolescents refuse the offer of a beer only somewhat convincingly. Those adolescents with better refusal skills had higher levels of alcohol misuse prevention knowledge, especially regarding resisting pressures to use alcohol and the application of knowledge to typical alcohol-related situations. They also reported less susceptibility to peer pressure, greater internal health locus of control and self-esteem, and less alcohol use and misuse. The results provide support for teaching refusal skills in substance abuser prevention programs and for assessing refusal skills in the evaluation of such programs.

176 Shope, J. T., Kloska, D. D., Dielman, T. E., & Maharg, R. (1994). **Longitudinal evaluation of an enhanced Alcohol Misuse Prevention Study (AMPS) curriculum for grades six-eight.** *Journal of School Health, 64*(4), 160-166.

For students progressing from 6th to 8th grade, an enhanced Alcohol Misuse Prevention Study (AMPS) curriculum that emphasized social pressure resistance training, peer support, and norm-setting was developed, implemented, and evaluated. Schools were randomly assigned within communities to curriculum or control groups. Students were pretested early in 6th grade before the intervention and posttested at the end of 6th, 7th, and 8th grades. Results indicated the curriculum was effective in increasing students' knowledge of curriculum material, and among the subgroup of students who had used alcohol unsupervised by adults before the pretest, in reducing the rate of increase of alcohol misuse. The findings result from a replication of the analytic approach used with the initial AMPS cohort data.

177 Simon, T. R., Sussman, S., & Dent, C. W. (1993). **Correlates of exclusive or combined use of cigarettes and smokeless tobacco among male adolescents.** *Addictive Behaviors, 18*, 623-634.

Past studies examining correlates of smokeless tobacco or cigarette use have investigated use of one tobacco product regardless of use of the other product. Thus, the etiology of exclusive use of the two tobacco products is not clear. The present study investigated the relationship of problem-prone-related variables to exclusive versus overlapping use of smokeless tobacco and cigarettes. Two samples of southern California male students (grades 8 through 12) were divided into groups according to their tobacco use status: neither product, cigarettes only, smokeless tobacco only, or both tobacco products. Generally, those who reported experimentation or 30-day use of both tobacco products reported a higher risk-taking preference, greater susceptibility to peer social influence to use tobacco products, and greater likelihood to have tried marijuana and alcohol than did subjects who were not users of either tobacco product. Adolescents who used either product, but not both, reported similar scores on most of the variables examined, which fell in between combined or nonuse categories. These results suggest that the number of tobacco products used, not the specific product, is associated with problem-prone attributes.

178 Sindelar, J. L. (1993). **Measurement issues in alcohol survey data.** In M. E. Hilton & G. Bloss (Eds.), *Economics and the prevention of alcohol-related problems* (pp. 201-228). (NIAAA Research Monograph 25). (NIH Publication No. 93-3513). Washington, DC: U.S. Government Printing Office.

A variety of indicators of alcohol use (patterns of drinking, ethanol consumption, drinking context, etc.) and alcohol abuse and dependence are available in several large population-based household survey data sets. The choice of which indicator to use should be made with care and knowledge of the characteristics of the indicators; selections should be analyzed for robustness of the conclusions drawn. The empirical exercise using the Alcohol Supplement to the 1988 National Health Interview Survey shows that the choice of alcohol indicator and how it is used can affect fundamental conclusions drawn. Comparisons across studies should take into account alternative indicators used. Although there are several large household data sets that combine alcohol indicators with socioeconomic and demographic data, all have some weaknesses that could constrain analysis. Some of the vexing problems of causation, simultaneity, and inference could be solved, and all would be helped, by gathering additional relevant data. Areas of need in economic research (especially regarding the alcohol/income nexus) include improved data on income, labor supply, family members' behavior and characteristics, use of other drugs, indicators of other comorbidities, and relevant geographically varying factors.

179 Skager, R. (1993, September). **Confessions of a researcher: Teenage drinking deserves more attention than teenage illegal drug use.** *Prevention File*, 8-10.

According to the results of the California Student Survey, while teenage use of illegal drugs declined significantly from 1985 to 1991, drinking held steady. This should not be a surprise. Alcohol is associated with all kinds of good experiences in the media and is the apparent drug of choice for most adults. Our earnest attempts to prevent teenage drinking merely suggest that teens should wait until they are old enough. This message has obvious weaknesses. It is unlikely that significant reductions will be made in teenage drinking by prevention tactics that place responsibility on teenagers themselves. Recent research suggests that the social influence model of prevention may delay alcohol experimentation among children entering their teens. But a truly significant impact on teenage drinking would certainly require greatly reduced tolerance of heavy drinking in our society comparable to that which now confronts smoking.

180 Slade, J. (1993). **Adolescent nicotine use and dependence.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 305-320.

Nicotine dependence is alarmingly common, and it will remain so for the foreseeable future. Selling tobacco products is simply too profitable. It takes determination and practice on the clinician's part to bring tobacco use out from the background and give it the attention its seriousness demands.

181 Smelson, D. A. (1993). **Adolescent substance abuse prevention.** *New Jersey Medicine, 90*(11), 845-8.

Increasing attention is being focused on the prevention of substance use, rather than treatment. The author critiques the literature and provides a conceptual framework for a better understanding of adolescent substance abuse prevention under school-based, psychosocial, and legislative models.

182 Smith, G. T. (1994). **Psychological expectancy as mediator of vulnerability to alcoholism.** *Annals of the New York Academy of Sciences, 708*, 165-71.

Alcohol expectancy has proven to be a powerful predictor of drinking behavior, including alcoholism, in a wide range of groups. Three recent studies that begin to address expectancy's relation to other alcoholism vulnerability factors are reviewed. Results indicate that: (1) expectancies for reinforcement from alcohol predate teens' first drinking experiences; (2) expectancies predict subsequent drinking onset and problem drinking; (3) high initial expectancies lead to a vicious cycle of progressively more drinking and more positive expectancies during the adolescent years; (4) expectancy mediates the influence of family drinking history on adolescent drinking; and (5) as an alcohol-specific risk factor, expectancy adds to and (in women) interacts with more general, dispositional (personality) risk factors to predict problem drinking in young adults. These findings support the model of expectancy as a mediator of the original causal influences of earlier learning experiences.

183 St. Pierre, T. L., Kaltreider, D. L., Mark, M. M., & Aikin, K. J. (1992). **Drug prevention in a community setting: A longitudinal study of the relative effectiveness of a three-year primary prevention program in Boys & Girls Clubs across the nation.** *American Journal of Community Psychology, 20*(6), 673-706.

The Boys & Girls Clubs of America's Stay SMART program, adapted from a school-based personal and social competence drug prevention program, was offered, with and without a two-year booster program, to 13-year-old members of Boys & Girls Clubs. Over 27 months, five Boys & Girls Clubs offered the Stay SMART program; five Boys & Girls Clubs offered the Stay SMART program with the booster programs; and four Boys & Girls Clubs served as a control group. The Stay SMART program alone and the Stay SMART program with the booster programs showed effects for marijuana-related behavior, cigarette-related behavior, alcohol-related behavior, overall drug-related behavior, and knowledge concerning drug use. The Stay SMART program with the booster programs produced additional effects for alcohol attitudes and marijuana attitudes after each year of booster programs. Results suggest that a school-based personal and social competence program can be adapted effectively to a community setting, and that booster programs might enhance program effects. It should be noted that those adolescents most at risk generally selected out of the study.

184 Stacy, A. W., Newcomb, M. D., & Bentler, P. M. (1993). **Cognitive motivations and sensation seeking as long-term predictors of drinking problems.** *Journal of Social & Clinical Psychology, 12*(1), 1-24.

Psychosocial precursors of problem drinking vulnerability were examined by evaluating the long-term predictive effects of adolescent cognitive motivations for alcohol use and sensation seeking on a wide variety of adult drinking-problem consequences including driving while intoxicated (DWI). Results from a longitudinal study of 584 students (mean age 17.95 years) indicate that the cognitive motivation factor was a significant, independent, 9-year predictor of a factor of drinking-problem consequences. The significant, independent effects on problem-drinking variables demonstrate that psychosocial vulnerability appeared across a range of consumption levels. Findings are discussed in terms of counseling practices and the identification of teenagers of high-risk drinking problems and DWI in later adulthood.

185 Stanton, B., & Galbraith, J. (1994). **Drug trafficking among African-American early adolescents: Prevalence, consequences, and associated behaviors and beliefs.** *Pediatrics, 93*(6), 1039-1043.

Drug trafficking by minority youths in low-income, urban areas has received considerable publicity from the mass media in the past half-decade; however, there has been relatively little exposition of this problem in the medical literature. This review was undertaken to provide an overview of the epidemiology and consequences of drug trafficking among urban youths and to describe factors associated with drug trafficking. Existing data indicate that approximately 10% of male, urban, Black early adolescents report having engaged in drug trafficking, with a higher percentage of youths reporting having been asked to sell drugs and/or indicating that they expect to become involved in drug trafficking. Rates increase with advancing age. Reported rates of drug trafficking are comparable with rates of tobacco and alcohol use among early adolescents and are substantially higher than use rates of illegal drugs. Drug trafficking is associated with increased mortality, accounting for one third to one half of homicide-related deaths in some studies. The practice is also associated with other health-risk behaviors, including nonfatal violence, substance use, and incarceration. Perceived social pressures by family members and/or peers to engage in drug trafficking and the belief that a youth's wage-earning potential is limited to drug trafficking are highly correlated with involvement in this activity. Drug trafficking is a prevalent risk behavior among adolescents which has several negative health consequences.

186 Stanton, B., Romer, D., Ricardo, I., Black, M., Feigelman, S., & Galbraith, J. (1993). **Early initiation of sex and its lack of association with risk behaviors among adolescent African-Americans.** *Pediatrics, 92*(1), 13-9. Comment in: *Pediatrics, 92*(1), 146-8.

High rates of adolescent homicide, pregnancy, substance abuse, and sexually transmitted diseases underscore the importance of interventions designed to reduce problem behaviors; however, the definition of "problem" behavior and the association with other activities may change between youth cultures. Therefore, greater attention to defining the problem behaviors to be targeted will permit more effective utilization of primary versus secondary intervention strategies and identification of high-risk individuals. Two studies of Black adolescents regarding sexual intercourse, school truancy, substance abuse, and drug trafficking are presented. The first study involved 57 youths (10 to 14 years of age) from a pediatric primary health center and gathered data through pile-sorting. The second study of 300 youths (9 to 15 years of age) from six public housing sites used a questionnaire administered by a "talking" computer. Both studies assessed different self-reported behaviors, feelings about engaging in specific behaviors, and perceptions of friends' behaviors. While 40% of subjects reported having had sex, substantially smaller proportions reported school truancy (14%), illicit drug use (2% to 6%), or drug trafficking (6%). Analyses of reported behaviors, feelings, and perceived peer norms revealed that sex was consistently depicted as forming a different domain from other problem behaviors. Interventions that rely on primary prevention strategies for sexual intercourse and that identify sexually active youths as at risk for problem behaviors may not be appropriate for Black adolescents growing up in resource-depleted urban areas.

187 Steinberg, L., Fletcher, A., & Darling, N. (1994). **Parental monitoring and peer influences on adolescent substance use.** *Pediatrics, 93*(6), 1060-1064.

A longitudinal study assessed parental monitoring and peer influences for their relationship to substance use among 6,500 students at six high schools in Wisconsin and northern California. Parental monitoring was negatively associated with substance use, whereas the more involved an adolescent's peers were in substance use, the more likely he or she also was to use drugs and alcohol. Effects of monitoring and peer coercion were strongest for boys and girls at the transition into substance use, rather than at the transition from experimentation to regular use. The effect of parental monitoring on changes in adolescent substance use seemed to be mediated not so much by the nature of the adolescent's peer associates, as by its direct effect on the adolescent. Specifically, poorly monitored adolescents were more likely to use drugs, and drug-using adolescents sought out like-minded friends. Once an adolescent associates with drug-using peers, his or her own substance use tends to approach their level. Intervention efforts should include both parents and the community. Parental monitoring is an effective tool both in the prevention of drug use and in the amelioration of drug use.

188 Stevens, M. M., Freeman (Jr.), D. H., Mott, L. A., Youells, F. E., & Linsey, S. C. (1993). **Smokeless tobacco use among children: The New Hampshire Study.** *American Journal of Preventive Medicine, 9*(3), 160-7.

Rural public school children initially in grades 4, 5, and 6 participated in a 36-month follow-up study of substance abuse prevention. Children completed self-report questionnaires at baseline and annually for three years after the introduction of prevention programs. We compared outcomes of: (a) a comprehensive school curriculum (Here's Looking at You, 2000); (b) the curriculum plus a parenting course (Parent Communication Course) and a community task force (Johnson Institute Model); and (c) control condition. Neither the curriculum, nor the curriculum plus parent and community intervention, had any effect on smokeless tobacco use by this preadolescent and young adolescent population. We used stepwise logistic regression to determine prediction models for smokeless tobacco use. Initiation of smokeless tobacco use is associated with gender, grade, and having friends who use drugs. Although regular use increases with grade, poor family relations, and low school satisfaction, the greatest risk factor was ever trying smokeless tobacco. We describe the culture of smokeless tobacco use in this population, and we discuss the implications of our research for prevention of smokeless tobacco use.

189 Stewart, M. A., & Brown, S. A. (1993). **Family functioning following adolescent substance abuse treatment.** *Journal of Substance Abuse, 5*(4), 327-339.

Reciprocal influences of substance abuse and family functioning have been hypothesized from diverse theoretical perspectives. The longitudinal study presented here investigated the relationship between adolescent alcohol and drug use outcome and family functioning following treatment of 82 adolescents for substance abuse in a San Diego, California, program. The sample included 49 male and 33 female adolescents. Family relations were assessed using the Family Relationship Index. Consistent with predictions, long-term improving teens ($n = 17$) experienced better family relations and less conflict-related behavior within the family, than did teens who returned to an abuse pattern of drug use ($n = 37$). Two years following treatment, families of improvers demonstrated greater cohesion and expressiveness, and less conflict, than did families of relapsers. Findings highlight a gradual process of adaptation in relations among families of teens treated for alcohol and drug abuse.

190 Stice, E., Barrera, M. J., & Chassin, L. (1993). **Relation of parental support and control to adolescents' externalizing symptomatology and substance use: A longitudinal examination of curvilinear effects.** *Journal of Abnormal Child Psychology, 21*(6), 609-29.

Past research has generated inconsistent findings regarding the relation of parental control and support to adolescent problem behaviors. Using two waves of data collected one year apart, the current study examined the influence of parental control and support on adolescents' externalizing symptoms, alcohol use, and illicit substance use. A sample of adolescent children of alcoholics ($N = 454$) and their parents was recruited via community telephone surveys, and matched for child's age, family structure, ethnicity of alcoholic parent, and economic status, with control families. Interviews were performed with closed-ended responses entered directly into laptop computers. Cross-sectional analyses showed a generally negative relation of the joint and unique effects of parental support and control to adolescent and parent reports of externalizing symptomology. Multiple-regression analyses of cross-sectional data showed a negative quadratic relation between parental control and adolescent externalizing symptomatology, and between parental control and adolescent illicit substance use. Parental control had a negative linear relation to adolescent alcohol use. Parental support showed a negative quadratic relation to adolescent illicit substance use, and negative linear relations to adolescent alcohol use and externalizing symptoms. Although longitudinally-adjusted contemporaneous results were consistent with cross-sectional findings, parental support and control were prospectively related only to adolescent alcohol use. The quadratic relations suggest that adolescents who receive extremes either of parental support or of control are at greater risk for problem behaviors.

191 Strasburger, V. C. (1993). **Adolescents, drugs, and the media.** *Adolescent Medicine: State of the Art Reviews, 4*(2), 391-415.

The media are neither intrinsically good nor bad. Television, in particular, can be a potent teacher of healthful or prosocial messages for children and adolescents. Currently, in the 1990s, the media are simply a way of delivering

an audience to advertisers. But all too often, that audience is young and underage, and the advertisers are the tobacco and alcohol industries.

192 Sussman, S., Dent, C. W., Simon, T. R., Stacy, A. W., et al. (1993). **Identification of which high-risk youth smoke cigarettes regularly.** *Health Values: The Journal of Health Behavior, Education & Promotion, 17*(1), 42-53.

Researchers investigated which questionnaire items would differentiate high-risk adolescents from others, noting which items would differentiate high-risk youth at various tobacco use levels. Though several variables distinguished high-risk youths, only close friends' tobacco use and value placed on health significantly predicted regular smoking among high-risk youth.

193 Sussman, S., Dent, C. W., Stacy, A. W., Sun, P., Craig, S., Simon, T. R., Burton, D., & Flay, B. R. (1993). **Project Towards No Tobacco Use: 1-year behavior outcomes.** *American Journal of Public Health, 83*(9), 1245-1250.

One-year follow-up data are presented from a school-based tobacco use prevention project designed to test the effectiveness of three main components of social influence programs. The components teach refusal skills, awareness of social misperceptions about tobacco use, and misconceptions about physical consequences. Four different curricula were developed and tested in a randomized experiment involving 48 California junior high schools. The outcome variables examined were changes in initial and weekly cigarette and smokeless tobacco use one year after the intervention. Analyses indicated that each of the component programs were effective in decreasing both the initial and the weekly use of cigarettes except for the curriculum in which refusal skills were taught. Also, each curriculum was effective in decreasing the initial use of smokeless tobacco except for the one aimed at correcting social misperceptions. Only the combined curriculum showed an effect on the weekly use of smokeless tobacco. The combined intervention was the most effective overall in reducing the initial and weekly use of cigarettes and smokeless tobacco. This suggests that different reasons for use exist and need to be counteracted simultaneously. However, since single programs were also effective in reducing all but weekly smokeless tobacco use, any of these components may be worthwhile prevention tools.

194 Sussman, S., Hahn, G., Dent, C. W., Stacy, A. W., Burton, D., & Flay, B. R. (1993). **Naturalistic observation of adolescent tobacco use.** *International Journal of the Addictions, 28*(9), 803-811.

A naturalistic observation study of adolescent tobacco use was conducted at selected California secondary schools to corroborate previous studies using self-report questionnaire or structured interview methods to study this problem behavior. Several findings converged with previous accounts of adolescent tobacco use. For example, most use occurred in small groups. However, other findings diverged somewhat from previous research in that an unexpectedly low number of offers of tobacco was observed, nonusers were present in smoking groups, and solitary smoking was common. These data suggest that direct, normative social pressure to use tobacco may not be as frequent as more subtle informational social influence, at least in high school adolescent tobacco use groups.

195 Swisher, J. D., Baker, S. B., Barnes, J. A., Doebler, M. K., Hadleman, D. E., & Kophazi, K. M. (1993). **An evaluation of student assistance programs in Pennsylvania.** *Journal of Alcohol and Drug Education, 39*(1), 1-18.

This study evaluated the training of members of core team Student Assistance Programs (SAPs) sponsored by the Pennsylvania Department of Education. Surveys were mailed to samples of core team members and noncore team colleagues, and a sample of core team coordinators received telephone interviews. In a comparative analysis of answers to selected questions from Educational Quality Assessment (EQA) data, students' response averages from 11 schools that had implemented the core teams were compared with 11 matched schools that had no SAP programs. Fifty-seven percent of the core team members and 59% of the noncore team members returned surveys, and 89% of the coordinators were interviewed. Generally, the training was viewed very positively. Some components of the training program needed to be improved through extended training time or follow-up training modules. Implementation occurred quickly after training and was viewed very positively by respondents. Of the 28 EQA items

studied in the comparative analysis, students in the schools that had SAPs were more likely to talk to friends about the risks of smoking ($p < .02$).

196 Thomas, B. S. (1993). **Drug use in a small midwestern community and relationships to selected characteristics.** *Journal of Drug Education, 23*(3), 247-58.

A study of 1,074 Iowa high school (grades 9 through 12) students' alcohol and other drug (AOD) use along with the consequences of such use was supplemented with comparisons of grade level and gender differences and analyses of the relationships between AOD use and incidence of adverse consequences with grade point average, attendance at religious services, frequency of dating, frequency of driving a car, and frequency of having trouble at school. Alcohol was clearly the drug of choice and produced a variety of adverse consequences. Most frequently reported were arguments, trouble with parents and at school, and nausea or vomiting. Grade level differences were found, but few significant gender differences emerged. Significant relationships between AOD use and consequences with all other independent variables were found.

197 Thomas, B. S., & Hsiu, L. T. (1993). **Role of selected risk factors in predicting adolescent drug use and its adverse consequences.** *International Journal of the Addictions, 28*(14), 1549-1563.

The purpose of this study was to examine the effectiveness of selected risk factors in predicting alcohol and other drug (AOD) use and adverse consequences of use. Three regression analyses were performed on four categories of risk factors: individual, familal, school-related, and social. The sample included 887 of 891 eligible students in grades 9-12 in two semiurban midwestern school districts (99.6%). Significant predictors for AOD use were grade level, participation in religious services, GPA, frequency of dating and driving, trouble at school, mastery, and family management index. Predictors for adverse consequences were GPA, frequency of dating trouble at school, family management index, risk taking, alienation, susceptibility to peer pressure, and living arrangements.

198 Thomas, C. F., English, J. L., & Bickel, A. S. (1993, September). ***Moving toward integrated services: A literature review for prevention specialists.*** Portland, OR: Western Regional Center for Drug-Free Schools and Communities.

School-linked services are part of a larger movement toward the integration of education, health, and social services to solve problems of service fragmentation, overlap, and lack of access and availability. The vision of this integration is for all agencies in the community to be child-centered and to increase the likelihood that all children will be healthy during their important developmental years. This can be accomplished through increased collaboration and partnerships among service agencies to develop and work toward this common goal. There have been few empirical evaluations of integrated service models. Most of the literature reviewed for this document are advocacy papers, policy briefs, and descriptions of programs. There does appear to be a consensus that the various problems facing youth are interrelated. Accordingly, awareness is emerging that these related problems must be addressed with coordination, collaboration, and cooperation between service providers.

199 Thombs, D. L., & Beck, K. H. (1994). **The social context of four adolescent drinking patterns.** *Health Education Research, 9*(1), 13-22.

The social context of adolescent drinking involves the combined influence of motivational and situational factors. This investigation assessed the usefulness of the Social Context of Drinking Scales in discriminating among four adolescent drinker types, classified by relatively low scores on alcohol consumption measures and the Rutgers Alcohol Problem Index (RAPI), a measure of drinking consequences. A survey was administered to 1,481 students in two western New York high schools (87% of the total combined enrollment of the two schools) to assess drinking patterns. Heavy drinkers were identified by high consumption scores, but a low RAPI score. High-consequence drinkers were those with high RAPI scores. A discriminant analysis of the drinkers groups yielded three statistically significant functions. The first one, which most clearly distinguished light from high-consequence drinkers, was dominated by the variable "stress control." Alcohol use intensity was not important to the discrimination between these two types of alcohol abusers. Moderate and heavy drinkers were distinguished from one another by gender on a

third function. The findings support the discriminant validity of the Social Context of Drinking Scales and point to social psychological differences among types of adolescent drinkers.

200 Tommasello, A., Tyler, F. B., Tyler, S. L., & Zhang, Y. (1993). **Psychosocial correlates of drug use among Latino youth leading autonomous lives.** *International Journal of the Addictions, 28*(5), 435-50.

Drug use and psychosocial profile of young Central American immigrants in Washington, DC, were compared to the National Household Survey of Latinos. The 57 immigrants (49 males and 8 females) interviewed showed: (a) more exposure to alcohol and illicit drugs than NHS Latinos; (b) interrelated marijuana, cocaine, PCP, and hallucinogenic drug use; and (c) a positive association between psychosocial competency and ratio of perceived supports/threats. Drug involvement intensity was negatively associated with psychosocial competence and positively with instrumental drug use, alcoholism symptoms, and problems. Crisis scores and drug involvement were related only in the high support/threat group. Supportive environments may be more effective than threats in preventing drug use.

201 Torabi, M. R., Bailey, W. J., & Majd-Jabbari, M. (1993). **Cigarette smoking as a predictor of alcohol and other drug use by children and adolescents: Evidence of the "gateway drug effect".** *Journal of School Health, 63*(7), 302-306.

Data from a statewide survey, conducted by the Indiana Prevention Resource Center, of 20,629 students in grades 5-12 were analyzed to determine the extent to which cigarette smoking predicted use of alcohol and other drugs and acted as a so-called "gateway drug." A three-stage purposive/quota cluster sampling strategy yielded a representative sample of Indiana students, stratified by grade. Cross-tabulated data revealed a strong, dose-dependent relationship between smoking behavior and binge drinking, as well as use of alcohol and illicit drugs. Pack-a-day smokers were three times more likely to drink alcohol, seven times more likely to use smokeless tobacco, and 10-30 times more likely to use illicit drugs than nonsmokers. A stepwise multiple regression analyzed the role that a student's perceptions of the risk of using drugs and of peer approval or disaproval of the student's drug use, gender, grade in school, and ethnic background played in predicting that student's alcohol and other drug use.

202 Trad, P. V. (1993). **Substance abuse in adolescent mothers: Strategies for diagnosis, treatment and prevention.** *Journal of Substance Abuse Treatment, 10,* 421-431.

Adolescent drug addiction and alcohol abuse are on the rise in this country. Teenagers of all races and socioeconomic groups and of both genders have become avid experimenters with a full spectrum of substances, including alcohol, marijuana, stimulants, cocaine, and hallucinogens. A diagnosis of addiction requires familiarity with the normative trends of adolescent behavior, as well as deviations from these trends. Moreover, an adolescent mother with a drug addiction problem confronts the additional burden of fostering adaptive developmental patterns in her infant. Treatment techniques such as previewing, which empowers through the representation and enactment of future outcomes, have helped addicted teenage mothers relinquesh drug use and adopt more mature caregiving behaviors.

203 Turner, G. E., Burciaga, C., Sussman, S., Klein-Selski, E., Craig, S., Dent, C. W., Mason, H. R. C., Burton, D., & Flay, B. (1993). **Which lesson components mediate refusal assertion skill improvement in school-based adolescent tobacco use prevention?** *International Journal of the Addictions, 28*(8), 749-766.

Any of three components of current school-based refusal assertion training might mediate improvement of 7th-grade students' ability to refuse tobacco use offers: (a) teaching students *knowledge* of ways to say "no"; (b) engaging students in the *practice* of refusal assertion; or (c) *motivating* students to perform refusal assertion in a socially skilled way. A 3-condition true field experimental "component study" in California of the differential effects of these three components yielded improvement in role-played behavioral skill to refuse tobacco offers that was evident in both the knowledge and practice conditions but not in the motivation condition. In these same two conditions, skills training led to a significant decrease in students' intention to use smokeless tobacco in the future but not

cigarettes. A focus on engaging students in knowledge and practice components of refusal assertion training appears warranted.

204 Turner, R., Irwin, C. E., Tschann, J. M., & Millstein, S. G. (1993). **Autonomy, relatedness, and the initiation of health risk behaviors in early adolescence.** *Health Psychology, 12*(3), 200-208.

This study examined the relationships among sociodemographic characteristics, family processes, and the initiation of health-risk behaviors in early adolescence. Subjects were 189 (110 male and 79 female) 6th and 7th graders at a San Francisco Bay area public middle school, whose parents had given active consent for their child to be surveyed. A path-analytic model was used to analyze data. Results showed that students who received autonomy support from parents were less likely to initiate sexual intercourse. Students who were emotionally detached from their parents were more likely to fight and use substances. Those who were emotionally detached tended to come from families with low levels of cohesion and acceptance. Sociodemographic variables, such as family structure, gender, and ethnicity, had both direct and indirect effects on health-risk behaviors, but the indirect effects were quite small.

205 Tuttle, J. (1993). **Adolescent substance abuse: Psychosocial factors.** *Journal of School Nursing, 9*(3), 18, 20, 22-5.

The prevention and management of adolescent substance abuse requires an understanding of the psychosocial context in which such a problem develops. This article reviews literature from the health and behavioral sciences and provides information about the prevalence of substance abuse, family and other psychosocial factors associated with substance abuse, and signs and symptoms of various kinds of substance abuse. Implications for school nursing practice are discussed and suggestions for implementation made.

206 Ullman, A. D., & Orenstein, A. (1994). **Why some children of alcoholics become alcoholics: Emulation of the drinker.** *Adolescence, 29*(113), 1-11.

From a review of recent literature, support was found for the hypothesis that the power of an alcoholic parent within a household is related to whether offspring become alcoholic. In considering reasons for this relationship, it is suggested here that children and adolescents are more likely to emulate and identify with a powerful alcoholic parent and, through these processes, learn that alcohol can make them feel powerful.

207 U.S. General Accounting Office. (1993, June). ***Drug use measurement: Strengths, limitations, and recommendations for improvement.*** (GAO/PEMD-93-18). Washington, DC: U.S. General Accounting Office.

The National Household Survey on Drug Abuse (NHSDA) is a sophisticated study of drug use patterns and trends within a national sample of households but is limited by the exclusion of groups at high risk for drug use, problematic measurement of heroin and cocaine use, and reliance on subject self-reports. The High School Senior Survey (HSSS) is also a sophisticated study but it excludes dropouts and absentees, yields questionable estimates of drug use in nonwhite populations, and relies on self-reports. Both these surveys therefore provide conservative estimates of drug use. Drug Use Forecasting (DUF) employs both self-reports and an objective technique — urinalysis — for assessing drug use, but its findings cannot be generalized to booked arrestees in the geographic areas sampled. It was found that drug prevalence estimates could be improved while money could be saved if NHSDA and HSSS were administered in alternate years rather than annually. There are several possibilities for validating the two surveys and estimating the extent of underreporting. Promising new methodologies, such as the analysis of hair samples, deserve exploration as means to validate self-reports and determine drug use over an extended period of time. Expanding the subsamples of current surveys and conducting new studies aimed at hard-to-reach, high-risk groups should improve the coverage of underrepresented target populations.

208 Vanderschmidt, H. F., Lang, J. M., Knight-Williams, V., & Vanderschmidt, G. F. (1993). **Risks among inner-city young teens: The prevalence of sexual activity, violence, drugs, and smoking.** *Journal of Adolescent Health, 14*, 282-288.

Boston University's Youth at Risk (URISK) program is working to reduce five high-risk behaviors — violence, sexual activity, drinking, illicit drug use, and smoking — among inner-city public middle-school students, grades 6-8. To set program priorities and for subsequent program evaluation, students in four schools completed a self-report questionnaire. Violence (physical fighting or carrying a knife or a gun) and sexual activity were the most commonly reported risks, 54% and 38%, respectively, for such activity within the past year. Four-fifths of the students reported risk in at least one of the five risk categories at some time; two-thirds reported current risk in at least one category. Among those reporting two or more current risks, over 90% included violence, and over 80% included sexual activity. Except for smoking, risk rates were lower in females than in males. Risk rates for violence and drug use were similar among Blacks and Whites, while sexual activity was more common and drinking and smoking less common among Blacks compared with Whites. Rates for all high-risk behaviors were consistently lower for Hispanics than non-Hispanic Whites. Risk rates for violence were similar for grades 6-8. Sexual activity increased mainly from the 7th to the 8th grade. Drinking increased both from the 6th to the 7th grade and again from the 7th to the 8th grade. Drug use and smoking increased only from the 6th to the 7th grade.

209 Vega, W. A., Gil, A., Warheit, G., Apospori, E., & Zimmerman, R. (1993). **The relationship of drug use to suicide ideation and attempts among African American, Hispanic, and White non-Hispanic male adolescents.** *Suicide and Life-Threatening Behavior, 23*(2), 110-119.

This study presents self-report cross-sectional and longitudinal data on associations between drug use, suicide ideation, and attempts in a multiethnic sample of 7th- and 8th-grade male adolescents attending school in the greater Miami, Florida, area. African Americans had the highest prevalence of 6-month ideation (20.5%), and Haitians had the highest attempts (11.4%). For the total sample, tranquilizers had the highest odds ratio for ideation (3.4), and PCP for attempts (6.2). Psychoactive drug-use was consistently related to attempts among Hispanics, White non-Hispanics, and African Americans. Acculturation strains interacted with cocaine and crack to predict suicide attempts among Hispanic respondents.

210 Vega, W. A., Zimmerman, R., Gil, A., Warheit, G. J., & Apospori, E. (1993). **Acculturation strain theory: Its application in explaining drug use behavior among Cuban and other Hispanic youth.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 144-166). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

This chapter reports the development of several scales intended to measure cultural orientation and acculturative stressors. These measures were developed for use in a large longitudinal study of adolescent drug use. The study is explicitly designed to identify interethnic and intraethnic differences in prevalence, stages, and risk factors for drug use, as well as to test competing social psychological theories of adolescent drug abuse, including acculturative strain. The eligible cohort for the baseline survey included all entry-level middle-school boys, as well as a subsample of girls, in the greater Miami, Florida, area. In fall 1990 there were approximately 10,836 eligible boys within 48 schools who received consent forms. More than one-half of these student were of Hispanic descent. After using active consent procedures, 8,592 consent forms were returned. The Hispanic students returned 81.9% of their consent forms, and the overall return rate was 79.4%. Completed questionnaires were received from approximately 6,700 male students. Data on a subsample of approximately 700 female students also were included. In addition to the data from self-administered student questionnaires, collateral information was secured from 3,025 parents. The parents were randomly selected and interviewed by telephone. The overall response rate for the parent interviews was 87 percent. The data from the student and parent samples were further augmented by teacher ratings, thereby providing three discrete, simultaneous observations for each adolescent in the special subsample. The objective of using collateral informants was to attain a more comprehensive understanding of the students' functioning and social adaptation, other than just his or her own opinion of themselves.

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211 Wagenaar, A. C. (1993). **Minimum drinking age and alcohol availability to youth: Issues and research needs.** In M. E. Hilton & G. Bloss (Eds.), *Economics and the prevention of alcohol-related problems* (pp. 175-200). (NIAAA Research Monograph 25). (NIH Publication No. 93-3513). Washington, DC: U.S. Government Printing Office.

The literature on the effects of minimum legal drinking age policies is extensive and demonstrates significant reductions in drinking rates and alcohol-related problems as a result of raising the legal age from 18 to 21 in the United States. However, as noted at the beginning of this paper, most youth continue to have access to alcohol, most drink at least occasionally, and a substantial fraction regularly become intoxicated. Social costs from injuries, deaths, and damage associated with underage drinking remain high. Continuing research and programmatic efforts are needed to fully implement the "age 21" policy, as well as to change the broader social environment that makes alcohol appealing to youth.

212 Wagenaar, A. C., Finnegan, J. R., Wolfson, M., Anstine, P. S., Williams, C. L., & Perry, C. L. (1993). **Where and how adolescents obtain alcoholic beverages.** *Public Health Reports, 108*(4), 459-464.

Patterns of acquisition of alcoholic beverages by underage youth were studied, using focus-group methods with a sample of midwestern youth. Results showed that the alcohol intially used by those in their early teens is obtained from parents' stocks or from older siblings and friends. By the mid teens, parties at which alcohol (usually beer) is readily available become the major source. By their late teens, young people purchase alcohol from commercial alcohol outlets, despite the fact that 21 is the legal age for purchasing alcohol. Factors reported to increase the rate of successful alcohol purchases include female buyer, male seller, young seller, and convenience store outlet. Results of focus group interviews revealed the easy accessibility of alcoholic beverages to underage youth. Further investigation into patterns of underage access to alcohol is recommended, with results from the focus group study guiding the design of probability sample studies to assess their generalizability.

213 Wallace (Jr.), J. M., & Bachman, J. G. (1993). **Validity of self-reports in student-based studies on minority populations: Issues and concerns.** In M. R. De La Rosa & J. R. Adrados (Eds.), *Drug abuse among minority youth: Advances in research and methodology* (pp. 167-200). (NIDA Research Monograph Series 130). (NIH Publication No. 93-3479). Washington, DC: U.S. Government Printing Office.

The data presented here are drawn from the Monitoring the Future Project, also known as the National Senior Survey. Findings on 30-day and annual prevalence indicate that marijuana use among male and female high school seniors is highest for American Indians, followed by Whites and Mexican Americans, Blacks and Puerto Ricans/Latinos, and finally Asian American seniors. Generally, cocaine use is most prevalent among American Indians, and Mexican Americans and Puerto Rican/Latino males, followed by White males. Prevalences among Black males and the other groups are appreciably lower. Use of the licit drugs — cigarettes and alcohol — also shows sizeable racial/ethnic differences in self-reported use. Cigarette use is highest among American Indian seniors, somewhat lower among Whites, at intermediate levels among the two Hispanic groups, and lowest among Blacks and Asian-Americans. Alcohol use shows a pattern fairly similar to that of cigarette use, with prevalence particularly high among White and American Indian seniors and low among Blacks and Asian Americans. Although the authors remain cautious about reporting and interpreting racial differences in survey responses, especially when such differences are relatively small, they believe that the generally large racial/ethnic subgroup differences in self-reported drug use reported herein are, on the whole, valid and thus cannot be dismissed as due to differences in willingness to report honestly.

214 Wallerstein, N., & Martinez, L. (1994). **Empowerment evaluation: A case study of an adolescent substance abuse prevention program in New Mexico.** *Evaluation Practice, 15*(2), 131-138.

Research was conducted in 1988 at two high school sites: a large semiurban school, with 1,700 students (70% Hispanic); and a smaller rural reservation school, 450 students, from two pueblos. Qualitative research was

conducted on two participating ASAP groups from each site, using pre and postinterviews of students, participant observation of all hospital/jail sessions, and supplementary interviews with school personnel and comparison students to obtain the context of program implementation. In support of Freire's dialogical theory, the data uncovered the importance and value of "talking" as a way for youth to help others — group members, patients, family, and friends. Dialogue was a way to establish connections, disclose personal feelings, and adopt a caring stance, a precursor to social responsibility. Both groups expressed beliefs in group actions, which fits with empowerment theory. However, the pueblo youth developed feelings of hopelessness when the tribal council did not respond to their request to close the bars, even though they continued to give peer education and tribal presentations. By this time, the facilitator had stopped working with the youth, and the youth did not engage in dialogue or critical appraisal of the barriers to change; without opportunities for reflection, they abandoned their belief in social actions.

Participatory dialogue from the program started the three-stage process of self-identity change. Within each stage, the youth experienced changes on an emotional, critical thinking, and action level. In the first stage, youth developed an action orientation of caring about the problem, about their own actions, and about each other. In the second stage, youth began to act for individual changes, expressing an ability to help family and friends. In the third stage, youth reached an understanding of social responsibility, and the possibility for social actions. To stay at this third stage, requires constant reflection leading to conscientization, in order to sustain the long-term commitment to work on community problems, despite setbacks and frustrations.

215 Watts, W. D., & Ellis, A. M. (1993). **Sexual abuse and drinking and drug use: Implications for prevention.** *Journal of Drug Education, 23*(2), 183-200.

Based on a survey of 670 adolescent females in grades 7 through 12 in a suburban school system, the relationship between drinking, drug use, and sexual abuse is examined. Using a holistic approach to adolescent deviant behavior, connections between family, peer, psychosocial factors, and drug use and delinquency are explored. Girls who reported sexual molestation were more likely to have used a number of drugs, different from the prevalence profile of the larger sample. Significant correlations for younger girls between sexual molestation and delinquency were also found.

216 Weinberg, N. Z., Dielman, T. E., Mandell, W., & Shope, J. T. (1994). **Parental drinking and gender factors in the prediction of early adolescent alcohol use.** *International Journal of the Addictions, 29*(1), 89-104.

This study examines the relationship between children's reports of their parents' drinking patterns and the child's alcohol misuse and heavy alcohol use in early adolescence. Subjects were 2,213 5th and 6th grade students. Data on the child's alcohol use and misuse and parent's alcohol use were derived from classroom-administered questionnaires. Increased reported level of drinking by mother or by father was significantly associated with increased odds of alcohol misuse and heavy alcohol use among the children; this result was found for both boys and girls when examined separately. Examination for possible confounding effects of assortative mating by parental drinking suggests that reports of heavy drinking in either parent increases the risk of alcohol misuse and heavy alcohol use in children. Implications for prevention efforts are discussed.

217 Weisman, G. K. (1993). **Adolescent PTSD and developmental consequences of crack dealing.** *American Journal of Orthopsychiatry, 63*(4), 553-61.

The effect of crack dealing on emotionally disturbed adolescents in two inner-city Black communities is examined and illustrated by case examples. Crack dealing was most often found to have dynamics and consequences separate from those of crack use. These include posttraumatic stress disorder and other significant emotional disturbances arising from the violence associated with crack dealing, and the shaping of adolescent identity by the associated culture of violence and guns. Implications for school drug abuse education are explored.

218 Werch, C. E., & DiClemente, C. C. (1994). **A Multi-component Motivational Stage model for matching drug prevention strategies and messages to youth stage of use.** *Health Education Research, 9*(1), 37-46.

The purpose of this paper was to describe the development of a comprehensive, stage-based model for the prevention of drug use titled the Multi-component Motivational Stages (McMOS) model. The McMOS model is proposed as a

multielement, integrative theoretical framework for the development of prevention strategies and content which are matched to the developmental stages of drug use among youth, based on previous work by Prochaska and DiClemente. The major components of the McMOS drug prevention model include: (a) a stage-based framework which permits the matching of prevention strategies and messages to youths' stage of development in the change process; (b) the delineation of a continuum of stages ranging from the acquisition of drug use through the successful modification of drug use; (c) a two-level prevention schema for targeting a broader range of youth for intervention, including those regularly using drugs as well as those not yet regularly using drugs; (d) a drug specific emphasis for proposing prevention strategies targeting the most prevalently used drugs, based on epidemiologic research; (e) the delineation of major theoretical constructs influencing the movement of youth through the stages, based on three prominent behavioral theories; and (f) a framework for selecting a range of prevention delivery modes for youth at all stages and levels of behavior change.

219 Westermeyer, J., Specker, S., Neider, J., & Lingenfelter, M. A. (1994). **Substance abuse and associated psychiatric disorder among 100 adolescents.** *Journal of Addictive Diseases, 13*(1), 67-89.

One hundred adolescents aged 14 to 20 were studied in treatment programs located in two states (Minnesota and Oklahoma). The purpose of the study was to assess the course of substance use, number and type of substance disorder diagnoses, severity of substance disorder, treatment history for substance disorder, and psychiatric comorbidity. Duration of course, frequency of substance use, abuse vs. dependence, types of substances used, and associated problems are described as a function of age. Areas of psychiatric and social assessment included: (a) psychiatric self-rating scales in those 17 years and older; (b) psychiatrist-rated scales; (c) psychosocial status; (d) associated psychiatric diagnoses; (e) family history of mood and other psychiatric disorder; (f) childhood history; and (g) history of previous psychiatric treatment. These data confirm the severity of substance use among younger adolescents presenting to clinical facilities with substance disorder, but further reveal regressive substance disorder severity as these adolescents age. Both self-rated and psychiatrist-rated scales showed increased depressive symptoms with increasing age. Eating disorders occurred more often among older adolescents. Loss of either parent in childhood was associated with younger current age.

220 White, H. R., Brick, J., & Hansel, S. (1993). **A longitudinal investigation of alcohol use and aggression in adolescence.** *Journal of Studies on Alcohol* (11), 62-77.

Data from a prospective, longitudinal study of males and females tested at age 12, 15 and 18 years were used to study the relationship between alcohol use and aggression. Prevalence rates for alcohol use were similar for males and females. However, prevalence rates for aggressive behavior and alcohol-related aggression among females were lower than those for males and too low to permit meaningful analysis. Two series of nested structural equation models examined the interrelationships between alcohol use and aggressive behavior over time for all males in the sample and for male alcohol users only. The findings indicated that early aggressive behavior led to increases in alcohol use and alcohol-related aggression, but that levels of alcohol use were not significantly related to later aggressive behavior. Thus, the data suggest that alcohol-related aggression is engaged in by aggressive people who drink. These data lend support to other research that indicates early aggressive and antisocial behavior is predictive of later alcohol-related problems.

221 White, H. R., Hansell, S., & Brick, J. (1993). **Alcohol use and aggression among youth.** *Alcohol Health & Research World, 17*(2), 144-150.

Although alcohol use and aggression are related, few studies have examined this relationship among youth; those that have, found mixed results. A recent analysis of a community sample of male and female alcohol users aged 12 to 24 years found that among males, earlier levels of aggressive behavior as compared with levels of alcohol use were better predictors of later alcohol-related aggression, whereas among females, the reverse was true.

222 Wiener, R. L., Pritchard, C., Frauenhoffer, S. M., & Edmonds, M. (1993). **Evaluation of a Drug-free Schools and Community program: Integration of qualitative and quasi-experimental methods.** *Evaluation Review, 17*(5), 488-503.

An outcome evaluation of a Drug-free Schools and Community program (DFSC) in St. Louis, Missouri, employing a case study design and following a pattern-matching logic, included two cases (elementary and high school programs), two sources of evidence, a correlational panel survey, and a qualitative interview study. Predictions were made for both sources of evidence assuming the program was successful. The evaluation scheme sought to answer the following questions: (1) Did the number of activities attended early in the semester predict intentions to use substances as measured later in the semester? (2) Is it more likely that participation in DFSC activities caused changes in attitudes, knowledge, and intentions, than that previously held attitudes, knowledge, and intentions caused participants to attend activities? (3) How did students subjectively experience the program? (4) Did students believe that participation in the program influenced the way that they think and act about alcohol, tobacco, and drugs? The elementary school case matched the predicted outcome but the high school case did not. A discussion of the methodologies selected and the conclusions reached is presented to analyze the case-study, pattern-matching approach for future outcome studies.

223 Williams, J. G., & Smith, J. P. (1993). **Alcohol and other drug use among adolescents: Family and peer influences.** *Journal of Substance Abuse, 5*, 289-294.

The relationships among age, gender, involvement in family activities, involvement in peer activities, and teenage alcohol and other drug use were examined. Data from a random sample of 1,911 South Carolina public secondary school students (grades 7 through 12) were analyzed. Consistent with previous research, it was found that older subjects reported greater substance use than younger subjects; Whites reported greater use of alcohol and other drugs than Blacks; males reported greater use than females; and lower involvement in family activities and greater involvement in peer activities were associated with greater reported alcohol and other drug use. Interactions among these variables also were examined. Multiple regressions indicated that 74% of the variance in alcohol use, 80% of the variance in marijuana use, and 85% of the variance in use of other drugs were predicted by these variables.

224 Williams, M. L. (1993). **HIV infection among a national sample of adolescent intravenous drug abusers.** *Alcoholism Treatment Quarterly, 10*(1/2), 107-121.

Findings are presented from an analysis of demographic drug use, sexual activities, and HIV serology data collected from a sample of intravenous drug injectors between the ages of 13 and 21 not in drug treatment. Recent studies of adolescent drug injectors have shown that this group is at particularly high risk for HIV infection. They have been found to be at especially high risk due to sexual transmission. The data presented here differ from previous reports because HIV serology data were available for analysis. Data were collected at over 60 National AIDS Demonstration Research sites in the U.S. and Puerto Rico. Largely due to the clandestine nature of illegal drug abuse, the sample is not representative of adolescent injectors not in drug treatment programs. The sample was collected using snowball sampling with repeated first-stage contacts. Data were analyzed to investigate the relationships between socioeconomic measures, drugs abused, frequency of drug injection, number of sexual partners, number of same sex sexual partners, accepting money or drugs for sex, and HIV serostatus.

225 Wills, T. A., Vaccaro, D., & McNamara, G. (1994). **Novelty seeking, risk taking, and related constructs as predictors of adolescent substance use: An application of Cloninger's theory.** *Journal of Substance Abuse, 6*, 1-20.

A 67-item adaptation of the Tridimensional Personality Questionnaire (TPQ) and measures of 10 related constructs were administered, together with measures of tobacco, alcohol, and marijuana use, to 457 students in grades 7 and 8 in Westchester County, New York. Factor analysis indicated that the TPQ comprised nine subscales. An interaction for TPQ dimensions indicated that substance use was particularly elevated for persons with high novelty seeking, low harm avoidance, and low reward dependence. TPQ scales converged with constructs from other theoretical systems being correlated with measures of behavioral undercontrol, risk taking, impulsiveness, anger, independence, life events, tolerance for deviance, and sensation seeking. Implications for substance abuse theory are discussed.

226 Windle, M. (1994). **Coexisting problems and alcoholic family risk among adolescents.** *Annals of the New York Academy of Sciences, 708*, 157-64.

A substantial subset of nonclinical adolescents reported single or multiple problems with regard to drinking behavior, depressive symptoms, and delinquency. Cross-sectional data were taken from a four-wave longitudinal study. Surveys were administered to 1,174 students in grades 11 and 12 at a western New York high school (98% White, 74% Roman Catholic). Similar to previous research, males reported higher levels of heavy and problematic drinking, whereas females reported higher levels of depressive symptoms. Higher levels of alcohol involvement were associated with higher levels of delinquency for both boys and girls. Family history of alcoholism was associated with an overrepresentation of problem drinkers (as well as abstainers). These findings are fairly consistent with the adult alcohol typology literature in identifying coexisting problem patterns for the triumvirate of problem drinking, depressive symptoms, and antisocial behavior. Furthermore, these data support the manifestation of these patterns prior to the onset of alcohol dependence (and maybe alcohol abuse). Future longitudinal research needs to focus on the short- and long-term patterns of problem behaviors among adolescents and to identify common and unique precursors, correlates, and consequences associated with varying levels of alcohol involvement.

227 Windle, M. (1993). **A retrospective measure of childhood behavior problems and its use in predicting adolescent problem behaviors.** *Journal of Studies on Alcohol, 54*, 422-431.

Confirmatory factor analysis was used to support the dimensional structure of a four-factor retrospective measure of childhood behavior problems with a sample of 1,084 grade 10 and 11 students at three suburban high schools in western New York. Acceptable levels of internal consistency and low-to-moderate levels of parent-adolescent interrater agreement were indicated for the four factors of attentional deficit/hyperactivity, oppositional behavior, conduct disorder symptoms, and avoidance behaviors. The externalizing childhood problems (e.g., attentional deficit/hyperactivity, oppositional behavior, conduct disorder) were associated significantly with both internalizing (depression) and externalizing (e.g., alcohol consumption, delinquent activity) adolescent problem behaviors, as well as with an earlier age of onset for substance use. Avoidant behaviors in childhood were associated specifically with depressive symptomatology in adolescence. Results are discussed with regard to the role of childhood problems as precursors to adolescent/adult disorders.

228 Windle, M. (1994). **Substance use, risky behaviors, and victimization among a U.S. national adolescent sample.** *Addiction, 89*, 175-182.

Data from the National Adolescent Student Health Survey were used to study the interrelations among substance use, risky (dangerous) behaviors, and victimization among 3,789 8th and 10th graders. Pearson correlations indicated significant associations between substance use and both higher levels of risky behaviors (e.g., hitchhiking, going on a blind date) and victimization among adolescents. Regression analyses indicated the potency of risky behaviors as a predictor of victimization for male adolescents, and a significant risky behavior by illicit drug use interaction for female adolescents. Results are discussed with regard to potential short- and long-term health consequences of risky behaviors and violent victimization for psychological development in adolescence and adulthood.

229 Winters, K. C., Stinchfield, R. D., Fulkerson, J., & Henly, G. A. (1993). **Measuring alcohol and cannabis use disorders in an adolescent clinical sample.** *Psychology of Addictive Behaviors, 7*(3), 185-196.

The measurement of DSM-III-R alcohol and cannabis use disorders with a new structured adolescent diagnostic interview, the Adolescent Diagnostic Interview (ADI), is described. Subjects ($N = 276$, aged 12 to 19 years) were administered the ADI while receiving assessments at adolescent drug-abuse treatment facilities. Results pertaining to interrater agreements, test-retest reliability, concurrent validity, and criterion validity suggest that the interview offers a psychometrically sound approach to the measurement of alcohol and cannabis use disorders in adolescent clients. Further diagnostic research needs and limitations of the present study are discussed.

230 Winters, K. C., Stinchfield, R. D., & Henly, G. A. (1993). **Further validation of new scales measuring adolescent alcohol and other drug abuse.** *Journal of Studies on Alcohol, 54*(5), 534-541.

The Personal Experience Inventory (PEI) is a recently developed self-report inventory that measures problem severity and psychosocial risk factors associated with adolescent alcohol and other drug involvement. Although previous studies have provided initial support for the psychometric properties of the PEI, this validity evidence was based on uncontrolled studies. The present study examined the concurrent validity of the PEI on a new sample using more controlled research procedures. Results indicated that the PEI Basic Problem Severity scales were significantly related to groups defined by DSM-III-R criteria for substance use disorders and by treatment referral recommendations. Also, the main PEI Problem Severity scale, the Personal Involvement scale, correctly classified a significantly greater proportion of participants into referral subgroups than would be expected given the base rates for the sample. This evidence provides additional support for the validity of the PEI as a problem severity measure of adolescent alcohol and other drug use.

231 Wodarski, J. S., & Bordnick, P. S. (1994). **Teaching adolescents about alcohol and driving: A 2-year follow-up study.** *Research on Social Work Practice, 4*(1), 28-39.

Previously reported data have demonstrated the effectiveness of the Teams, Games, Tournaments (TGT) alcohol education program with Georgia high school students. This article presents a 2-year follow-up of the effects of the TGT program as compared to the traditional instruction and no-instruction control groups. Follow-up data indicate that the TGT students maintained previous positive changes. Applications of this primary prevention program to social work practice are discussed.

232 Young, T. J. (1993). **Alcoholism prevention among Native-American youth.** *Child Psychiatry and Human Development, 24*(1), 41-47.

Although Native Americans represent a diverse population, alcoholism prevention programs need to apply general knowledge of alcohol use and misuse, rather than search for extraordinary cultural factors. Such an approach would emphasize the importance of social relationships, peer group associations, family interactions, and individual adjustment in the prevention of alcoholism among Native Americans.

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